"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549820014-7

SHOKHIN, M. V.

30386

Novyy pochodnyy (poch v ye nnyy) tye rm omyetr. Byu llyetyen' Glav. Botan. sada. Vyp. 3, 1949, S. 80-82.

SO: Letopis' No. 34

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SHOKHIN, M. V.

Gardening

Handy garden hole digger. Biul. Glav. bot. sada, No. 9, 1951.

Monthly List of Russian Accessions, Library of Congress, June 1952. UNCLASSIFIED.

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[illegible]

Plants, protection of

Sprinkling for combating autumn frosts. Biul. Glav. bot. sada no. 10, 1951.

9. Monthly List of Russian Accessions, Library of Congress, December 1953, Uncl.

2

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549820014-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549820014-7

SHOKHIN, M. V. PA 245T60

USSR/Geophysics - Soil Evaporator Nov 52

"The Accuracy of Weighing Soil Evaporators," M. V. Shokhin, Main Botanical Gardens, Acad Sci USSR, Moscow

"Meteorol i Gidrol" No 11, pp 49-52

Discusses the accuracy of postal and inspector evaporator scales. Concludes that neither guarantees accuracy in weighing. Consistency in average daily evaporation is satisfactory in the weighing by the inspector scales but is completely lacking in the weighing by the postal scales.

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1. SIGALOV, B. YA. SHOKHIN, M.V.

2. USSR (600)

4. Grasses

7. Wintering of grass. biul. Glav bot. sada. no '52.

9. Monthly List of Russian Accessions, Library of Congress, March 1953. Unclassified.

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549820014-7

SHUMILIN, M.V.

Determination of the Temperature of Soil in Winter by Maximum Thermometers Meteorol. i gidrologiya, No 6, 1953, pp 40-43

A procedure for observations by maximum thermometers in wells down to depths of 120 cm is described. The magnitude of the error as a function of time of exposure is clarified. A comparison is made with data obtained by extraction thermometers (510 pairs of readings under Moscow in 1951-1952). It turned out that the mean temperature of the layer of soil from 20 to 120 cm according to the maximum thermometers is lower than according to the extraction thermometer by 0.2°. (RZhGeol, No 5, 1954)

SO: Sum. No 568, 6 Jul 55

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549820014-7

AUTHOR: Shokhin, M. V. SOV/50-58-11-17/25

TITLE: Errors in the Reading of Ground-frost Measuring Instruments Designed by Ratomskiy and Danilin (Pogreshnosti pokazaniy merzlotomerov Ratomskogo i Danilina)

PERIODICAL: Meteorologiya i gidrologiya, 1958, Nr 11, pp 52-55 (USSR)

ABSTRACT: Ratomskiy's (Ref 2) and Danilin's (Ref 1) instruments are mounted in a steady position and permit the determination of the dynamics of ground freezing and thawing. The construction and the process of observation of both instruments on the whole are based on the same principles, but the instruments used for determining the freezing limit are made of different materials. By means of Ratomskiy's instrument this limit is determined according to the freezing of the soil that has been filled into a metallic telescopic shell; by means of Danilin's instrument water in a rubber hose serves this purpose. The assumption that the soil in the shell and the water in the rubber hose freeze simultaneously with the water in the soil pores entails an inaccuracy since this may occur possibly at various temperatures. At the beginning of winter and in spring both instruments yield, primarily after the melting of the

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snow cover, distorted values of the depth of freezing and melting. In publications this problem hitherto has been insufficiently investigated. The author checked these depths by means of a drill or by digging out a prospect. The aforesaid measuring instruments were mounted in the Glavnyy botanicheskiy sad AN SSSR (Main Botanical Garden, AS USSR). In this case both the kinds of soil and trees differed from one another; the groundwater level was found in a depth of 0.5-1.0 m. The frequency of the above-mentioned differences (+ and - compared with the check) is listed in table 1 which indicates that Ratomskiy's measuring instrument in 92.3 % of all cases yielded higher values than the check. In 5.2 % equal readings were obtained. Figures 1 and 2 show the deviations of readings from the check at the beginning of winter and in spring. Table 2 and figures 3 and 4 show corresponding results obtained by Danilin's instrument. The author explains the deviations determined and arrives at the following conclusions: 1) Ratomskiy's groundfrost measuring instrument is not very well suited for regions of a low and unstable degree of ground frost. The tube and the filling shell are made of galvanized sheet iron, which

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possesses a high degree of thermal conductivity. Considerable errors in measurement occur accordingly. Checking measurements are to be carried out in regions where the ground freezes to a sufficient depth (up to a depth of 20-25 cm) at the beginning of winter and in spring during the thawing (up to a depth of 50 cm). 2) During the period of ground thawing Danilin's instrument agrees with the check to a larger extent than Ratomskiy's instrument. But in the case of thawing from above (from the surface) it records a lower depth than the check; on the other hand, a larger depth is determined in the case of thawing from below. After summing up these data a frozen ground layer is obtained that is thicker than the actual one. Accordingly, the time of complete thawing is shifted by 1-3 days. There are 4 figures, 2 tables, and 2 Soviet references.

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549820014-7

SHOKHIN, [illegible]

MODZOLEVSKIY, Igor' Vladimirovich; BARSEGOV, A.A.; KARPOV, I.V.; KARTSEV, I.T.; KRYLOV, N.M.; NIKOLAYEV, I.V.; REVICH, V.I.; SHEVYAKOV, V.A.; SHOKHIN, O.A.; CHUSOV, A.I.; GORODNICHEV, N.G., redaktor; CHERNYSHEV, V.I., redaktor; KHITROV, P.A., tekhnicheskiy redaktor

[General course on railroads] Obshchii kurs zheleznykh dorog. Izd. 2-e, perer. Moskva, Gos. transportnoe zhel-dor. izd-vo, 1954. 316 p. (MLRA 8:3)
(Railroads)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549820014-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549820014-7

MODZOLEVSKIY, Igor' Vladimirovich, inzh.; BARSEGOV, A.A.; KARPOV, I.V.; KARTSEV, I.T.; KRYLOV, N.M.; NIKOLAYEV, I.V.; REVICH, V.I.; SHEVYAKOV, V.A.; SHOKHIN, O.A.; CHUSOV, A.I.; GUBAREVA, N.T., red.; BOBROVA, Ye.N., tekhn.red.

[General course in railroad engineering] Obshchii kurs zheleznykh dorog. Izd.3., perer. Pod obshchei red. I.V.Modzolevskogo. Moskva, Vses.izdatel'sko-poligr.ob"edinenie M-va putei soobshcheniia, 1960. 290 p. (MIRA 13:12)

(Railroad engineering)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549820014-7

L 44382-66 EWT(1) FDN/GW

ACC NR: AP6029870 SOURCE CODE: UR/0413/66/000/015/0011/0011

36

INVENTOR: Belov, V. I.; Shevaldin, I. Ye.; Shokhin, V. F.

ORG: none

TITLE: A method of producing heat insulation in boreholes in permafrost regions. Class 5, No. 184205

B

SOURCE: Izobret prom obraz tov zn, no. 15, 1966, 11

TOPIC TAGS: permafrost, thermal insulation, borehole, drilling machine

ABSTRACT: A method of thermal insulation of boreholes drilled in permafrost regions is described. To prevent the cleaning fluid from freezing during circulation cutoff

Fig. 1. Borehole

1 - Inner column of casing pipes;
2 - outer column of casing pipes;
3 - reverse valve.

UDC: 622.245.01

Card 1/2

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549820014-7

L 44382-66
ACC NR: AP6029870

and the formation of hydrate during the subsequent exploration of the well, the space between the two columns of concentric casing pipes is filled with air. Whenever necessary, the air can be periodically blown through by means of reverse valves (see Fig. 1) installed in the lower part of the inner column. Orig. art. has: 1 figure. [CS]

SUB CODE: 08/ SUBM DATE: 15May65/ ATD PRESS: 5077

Card 2/2

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549820014-7

SHOKHIN, V. N.

SHOKHIN, V. N.: "Investigation of the phenomena of movement of mineral grains in suspensions used for dressing coal." Min Higher Educatio: USSR. Moscow Mining Inst imeni I. V. Stalin. Chair of Dressing of Useful Minerals. Moscow, 1956
(Dissertation for the Degree of Candidate in Technical Sciences)

So: Knizhnaya Letopis', No 17, 1956

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549820014-7

VERKHOVSKIY, I.N.; SHOKHIN, V.N.

Movement of mineral grains in suspensions. Obog. rud 3 no.6:16-20 '58. (MIRA 14:8)

(Ore dressing)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549820014-7

SOV/136-58-8-1/27

AUTHORS: Verkhovskiy, I.M. and Shokhin, V.N.

TITLE: Method of Determining Final Fall Velocities of Grains in Heavy Moving Media. (Metod opredeleniya konechnykh skorostey padeniya zeren v tyazhelykh podvizhnykh sredakh.)

PERIODICAL: Tsvetnyye Metally, 1958, 31, Nr.8, pp.1-4 (USSR).

ABSTRACT: For determining the falling velocities of particles in opaque media (suspensions) visual methods are unsuitable and various electrical systems have been proposed. The authors list the disadvantages of three of these - that of Mitrofanov and Zelinskiy (Ref.1), of Muzylev (Ref.2) and of Goroshko (Ref.3). They go on to describe their own method which is free from many of the listed defects. The electrical part of the method is an improvement on that of the tensometer designed by the Moskovskiy gornyy institut (Moscow Mining Institute). The principle is that as a ferromagnetic grain passes the centre line of an induction core it causes a change in the inductive resistance of the coil, which unbalances the bridge circuit of which the coil forms a part. The impulse is amplified and registered with a millivoltmeter; the same occurs when

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Method of Determining Final Fall Velocities of Grains in Heavy Moving Media.

the grain passes a second coil. An oscillographic record (Fig.2) or other means can be used for timing the grain over the distance. An editorial note points out that the authors have not taken into account the difference in suspension speed at the walls and centre of the tube of their apparatus (Fig.1). The authors claim that the apparatus enables the falling speed of grains in heavy media, including ferromagnetic suspensions, moving at a constant speed, to be determined, and suggest that the method could be applied to study grain motion in true solutions as well as suspensions. There are 2 figures, 1 table and 4 Soviet references.

ASSOCIATION: Moskovskiy gornyy institut (Moscow Mining Institute).

1. Grains (Metallurgy)--Theory 2. Grains (Metallurgy)--Testing equipment 3. Grains (Metallurgy)--Test results

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549820014-7

VARLAMOV, N.A.; SHOKHIN, V.N.; BELYKH, L.P.

Dressing Lisakovka ores in a hydrocyclone with a magnetite suspension. Gor. zhur. no.8:67-70 Ag '64. (MIRA 17:10)

1. Magnitogorskiy gornometallurgicheskiy institut.

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549820014-7

ZEMSKOV, V.D.; BRILLIANTOV, V.V.; VINOGRADOV, N.N.; SHOKHIN, V.N.
VLAD, P.

Electric measurement methods in investigating wet gravity ore dressing processes. Nauch. trudy MGI no. 32:5-14 '60.
(MIRA 14:2)

(Ore dressing) (Electric measurements)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549820014-7

VERKHOVSKIY, I.M.; SHOKHIN, V.N.

Determining the boundary dimensions of a grain moving in a suspension. Obog. rud 4 no.6:3-7 '59. (MIRA 14:8)

1. Moskovskiy Gornyy institut imeni I.V. Stalina.
(Particle size determination)
(Hydrometallurgy)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549820014-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549820014-7

VARLAKOV, N.A.; KOZLOV, I.M., kand. tekhn. nauk; SHOKHIN, V.P., kand. tekhn. nauk

Centrifugal dressing of oxidized iron ores in hydraulic cyclones. Biul. tekh.-ekon. inform. Ges. nauch.-issl. inst. nauch. i tekh. inform. 17 no.8:7-8 Ag '64. (MIRA 17:11)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549820014-7

GOLUBEV, A.V.; PAVLOV, A.V.; Prinimali uchastiye: ANAN'YEVA, Yu.G., laborant; IBRAGIMOVA, Z.R., laborant; MAL'KOVA, M.N., laborant; KOT[illegible], [illegible], laborant; SH[illegible]KIY, T.S., laborant; SHOKHINA, N.K., laborant,

Investigating heat currents in soils for some types of the active surface. Dokl. AN SSSR 139 no.6:66-118 Ag '61. (MIRA 14:7)

(Moscow Province—Soil temperature)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549820014-7

SHOKHINA, O.I., Cand Geol Min Sci -- (diss) "Alkaline rocks of the Bulan-Kul'skiy massive (Krasnoyarskiy Kray)." [Mos, 1959], 13 pp (Min of Higher Education. Mos Order of Lenin and Order of Labor Red Banner State Univ im M.V. Lomonosov. Geol Faculty. Chair of Petrography) 110 copies (KL, 34-59, 112)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549820014-7

SHOKHINA, O.I.

Composition and texture of alkali rocks in the Bulan-Kul'skiy massif. Nauch.dokl.vys.shkoly; geol.-geog.nauki no.2:54-61 '59. (MIRA 12:8)

1. Kompleksnaya laboratoriya Instituta geologii i geofiziki Sibirskogo otdela AN SSSR.
(Kuznetsk Ala-Tau--Rocks, Igneous)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549820014-7

SHOKHINA, O.I.

Geological characteristics of the Bulan-Kul' alkali massif (southern Krasnoyarsk Territory). Izv.vys.ucheb.zav.; geol.i razv. 2 no.3:54-64 Mr '59. (MIRA 12:12)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova.
(Bulan-Kul' region (Krasnoyarsk Territory)--Petrology)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549820014-7

PROTSENKO, P.I.; SHOKHINA, O.N.

Viscosity of melts in the system $NaNO_2$ - KNO_2. Zhur.neorg.khim. 9 no.1:152-155 Ja '64. (MIRA 17:2)

1. Rostovskiy gosudarstvennyy universitet.

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549820014-7

SHOKHINA, V.A.

Foraminifera of Jurassic and Cretaceous deposits of Gorkiy Province. Paleont.sbor. no.1:99-117 '54. (MLRA 8:10)
(Gorkiy Province--Foraminifera, Fossil)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549820014-7

SHOKHINA, V.A.

Stratigraphy of the southwestern end of the Sura-Moksha upheaval based on Foraminifera data. Trudy VNIGNI no.5:41-48 '55. (MLRA 10:9)
(Moksha Valley--Foraminifera, Fossil)
(Sura River--Foraminifera, Fossil)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549820014-7

SHOKHMAN, Ya.D., kand. med. nauk (Prokop'yevsk, Kemerovskoy oblasti. Vokzal'naya ul.,d.38,kv.23); FLAKSIN, I.T., mladshiy nauchnyy sotrudnik

Injuries of the hand in children due to percussion cap explosions. Ortop., travm. i protez. 25 no.11:57-59 N '64.
(MIRA 18:11)

1. Iz detskogo ortopedo-travmatologicheskogo otdeleniya (zav. - Ya.D. Shokhman) filiala Novosibirskogo instituta travmatologii i ortopedii (dir. - K.G. Nurenburg). Submitted February 11, 1964.

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549820014-7

KHRAMAYAN, S.P.; SHOKINA, V.V.; KNUNYANTS, I.L.

Fluorinated mono- and diepoxy compounds. Izv. AN SSSR Ser. khim. no.1.72-75 '65. (MIRA 18:2)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549820014-7

SHOKHMAN, Ya. D.

Measurement of the strength of the muscles of the leg and foot. Ortop., travm. i protez. no.1:70-72 '62. (MIRA 15:2)

1. Iz detskoy kliniki (zav. - doktor med. nauk L. Ye. Rukhman) Leningradskogo nauchno-issledovatel'skogo instituta protezirovaniya (dir. - dotsent M. V. Strukov)

(MUSCLES) (LEG) (FOOT)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549820014-7

LOSHKAREV, M.A., kand.tekhn.nauk; BOGORAD, M.L., kand.tekhn.nauk;
SHOKHOR, G.I., inzh.

Calculation of the durability of threaded flange joints on the basis of maximum loads. Sbor. st. NIIKHIIMMASH no.21:3-8 '58.
(MIRA 11:7)

(Flanges--Testing)

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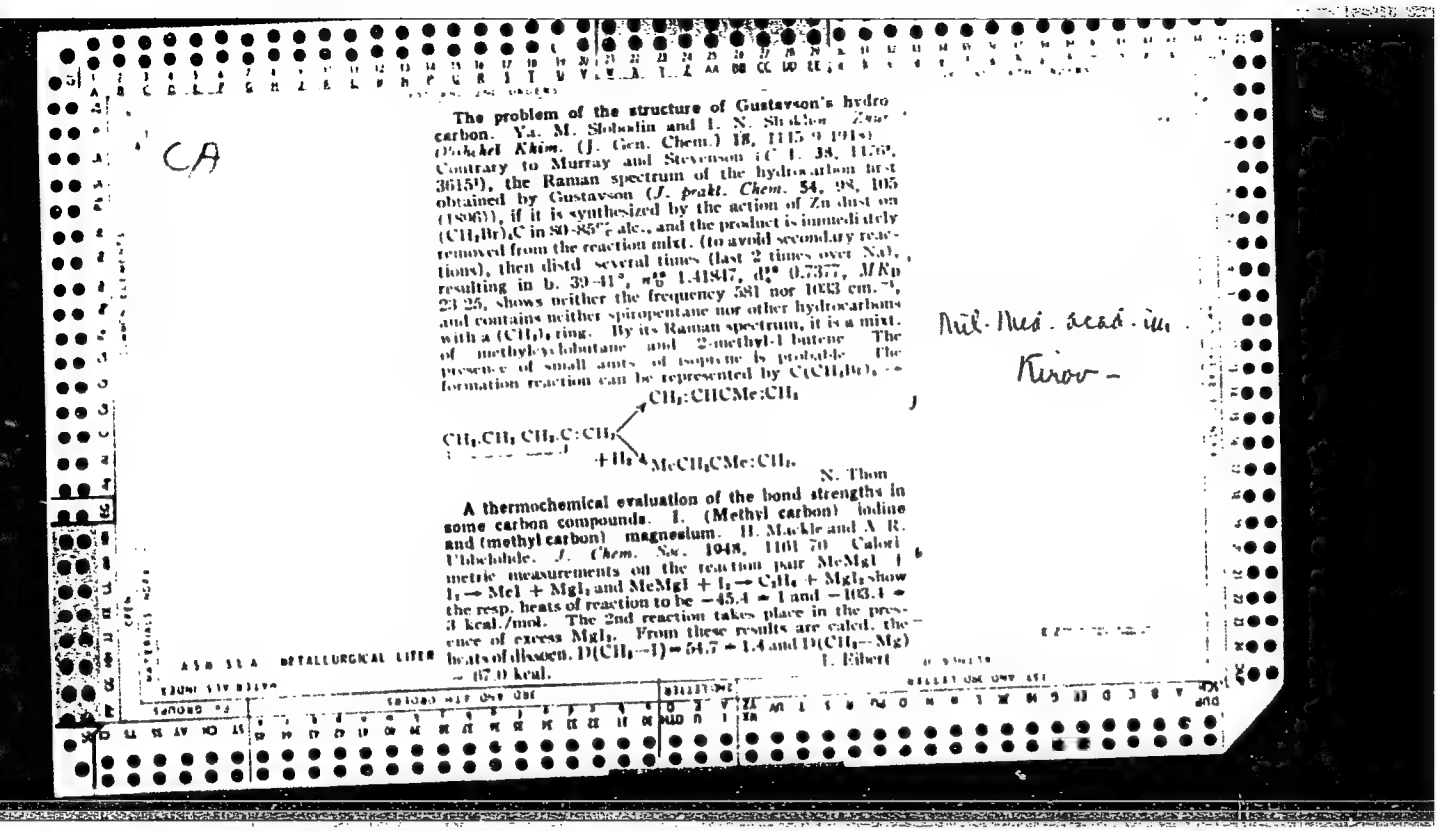

CA

The problem of the structure of Gustavson's hydrocarbon. Ya. M. Slobodin and I. N. Shokhor-Trotskii (*Zhur. Obshchei Khim.* (J. Gen. Chem.) **18**, 1115-9 (1948). Contrary to Murray and Stevenson (*C. A.* **38**, 1159; 3615), the Raman spectrum of the hydrocarbon first obtained by Gustavson (*J. prakt. Chem.* **54**, 98, 105 (1896)), if it is synthesized by the action of Zn dust on $(CH_2Br)_2C$ in 80-85° ale., and the product is immediately removed from the reaction mixt. (to avoid secondary reactions), then distd. several times (last 2 times over Na), resulting in b. 39-41°, n_D^{20} 1.4184?, d_4^{20} (0.7377, *MRD* 23.25, shows neither the frequency 581 nor 1003 cm.$^{-1}$, and contains neither spiropentane nor other hydrocarbons with a $(CH_2)_3$ ring. By its Raman spectrum, it is a mixt. of methylcyclobutane and 2-methyl-1-butene. The presence of small amts. of isoprene is probable. The formation reaction can be represented by $C(CH_2Br)_4 \rightarrow$

N. Thon

A thermochemical evaluation of the bond strengths in some carbon compounds. I. (Methyl carbon) iodine and (methyl carbon) magnesium. H. Mackle and A. R. Ubbelohde. *J. Chem. Soc.* 1948, 1101-70. Calori metric measurements on the reaction pair MeMgI + $I_2 \rightarrow$ MeI + MgI_2 and MeMgI + $I_2 \rightarrow C_2H_6$ + MgI_2 show the resp. heats of reaction to be −45.4 ± 1 and −103.4 ± 3 kcal./mol. The 2nd reaction takes place in the presence of excess MgI_2. From these results are calcd. the heats of dissocn. $D(CH_3{-}I) = 54.7 \pm 1.4$ and $D(CH_3{-}Mg)$ − 67.0 kcal.

I. Eibert

Nil. Med. acad. im. Kirov –

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549820014-7

SHOKHOR, I. N.

USSR/Chemistry - Polymerization, Dimerization
Chemistry - Vinyl Compounds

Aug 48

"Polymerization and Depolymerization: IV, The Dimerization of Divinyl," Ya. M. Slobodin, F. Yu. Rachinskiy, I. N. Shokhor, Mil Acad imeni S. M. Kirov, 3 pp

"Zhur Obshch Khimii" Vol XVIII (LXXX), No 8

Shows that during catalytic thermopolymerization of divinyl in presence of floridin dimer forms are produced, accompanied by migration of hydrogen atom. Main product of dimerization is 1,4-dimethyl-cyclohexadiene. By-product is 1,2-dimethyl-cyclohexadiene. Lebedev's dimer (vinyl-cyclohexene) is not formed under these conditions. Submitted 25 Jun 46.

PA 19/49T20

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549820014-7

SHOKHOR, I. N.

USSR/Chemistry - Polymerization
Chemistry - Vinyl Compounds

Aug 48

"Polymerization and Depolymerization: V, Tetrameric Divinyl," Ya. M. Slobodin, F. Yu. Rachinskiy, I. N. Shokhor, Mil Med Acad imeni S. M. Kirov, 2 pp

"Zhur Obshch Khimii" Vol XVIII (LXXX), No 8

Shows that tetramer formed during thermopolymerization of divinyl in presence of floridin in the temperature range 300-400 is 9,10-dimethyl-decahydro-anthracene. Submitted 22 Jun 46/

PA 19/49T21

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549820014-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549820014-7

DOLGOV, B.N., professor.;SHOKHOR, I.

Dehydrocyclization of benzalacetone. Nauch. biul. Len. un. no.22: 25-26 '49. (MLRA 10:4)

1. Kafedra organicheskoy khimii.
(Butenone)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549820014-7

CA

10

Synthesis of methylcyclopropylcarbinol. Ya. M. Slobodin and I. N. Shokhor. *Zhur. Obshchei Khim.* (J. Gen. Chem.) 21, 2001–5(1951); cf. Slabey and Wise, *C.A.* 44, 1038*c*.—$Ac(CH_2)_2OH$ with 55% HBr at room temp. gave 55–8% *bromide*, b_{50} 105–7°, b_{14} 83–5°; this (25 g.) treated with 12 g. KOH and 3.4 ml. H_2O with shaking gave 92–5% *cyclopropyl Me ketone* (I), b. 113–12.5°, d_4^{20} 0.8987, n_D^{20} 1.4246; *semicarbazone*, m. 121–2°. This (14 g.) in 250 ml. iso-PrOH treated with $Al(OCHMe_2)_3$ from 14 g. Al (with 0.5 g. $HgCl_2$ and 4 ml. CCl_4) and heated to 110–15° with distn. of Me_2CO gave, after cooling and addn. of aq. iso-PrOH, filtration, and extn. with Et_2O, 92.6% *methylcyclopropylcarbinol*, b_{760} 122.4–2.6°, d_4^{20} 0.8885, n_D^{20} 1.43140, γ^{20} 23.35 dynes-cm. Raman shift lines for the product are: 372(1), 480(2), 509(2), 711(3), 736(4), 770(2), 822(4), 885(10), 919(4), 933(1), 1020(1), 1078(1), 1107(1), 1197(10), 1244(2), 1300(2), 1394(1), 1435(3), 1463(3), 2877(3), 2933(3), 2977(3), 3013(8), 3077(4), 3420(8). For I these are: 248(3), 392(2), 468(1), 523(1), 688(4), 737(6), 816(5), 855(1), 894(5), 952(2), 1024(3), 1082(1), 1111(1), 1187(10), 1244(2), 1327(2), 1379(2), 1430(4), 1695(6), 2913(6), 3009(6), and 3092(4). The Raman analysis confirms the individuality of the product.

G. M. Kosolapoff

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Structure of Gustavson's hydrocarbon. II. Stepwise synthesis of spiropentane. Ya. M. Slobodin and I. N. Shokhor. *Zhur. Obshchei Khim.* (J. Gen. Chem.) 21, 2005–11(1951); cf. Gustavson, *Izvest. Akad. Nauk* (Russ.) 5, 237(1896); *J. prakt. Chem.* [2] 54, 105(1896); 56, 93 (1897); *C.A.* 43, 991*d*.—Raman analysis of Gustavson's hydrocarbon mixt. showed that the principal components are methylenecyclobutane and EtCMe:CH_2. The stepwise synthesis of spiropentane (Zelinskii and Kravets, *C.A.* 7, 1175) gives methylenecyclobutane only, since the 3-membered ring isomerizes to a 4-membered ring, confirming the mechanism of isomerization suggested by Favorskii and Batalin (*C.A.* 9, 1750). $C(CH_2OH)_4$ (136 g.) and 102 g. Ac_2O refluxed 8 hrs. gave several fractions, including 50% *1,3,3,5-pentanetetrol diacetate*, b_{18} 202–5°, which crystallizes in part owing to transposition of Ac groups, depositing pentaerythritol; the higher fractions contained tetra- and triacetates. The product treated with red P and Br in $CHCl_3$ with ice cooling gave 38% *2,2-bis(bromomethyl)-1,3-propanediol diacetate*, b_{18} 182–7°, d_4^{15} 1.6518, n_D^{15} 1.50591, which (190 g.), treated with 150 ml. EtOH, 15 ml. H_2O, and 50 g. Zn dust 2 hrs. on the steam bath gave *1,1-cyclopropanedimethanol diacetate*, 44%, b_{18} 135–7°, d_4^{15} 1.0617, n_D^{15} 1.44456, which boiled 6 hrs. with satd. K_2CO_3 soln. gave 55% *1,1-cyclopropanedimethanol*, b_{18} 123–7°, d_4^{15} 1.0710, n_D^{15} 1.46435, γ^{20} 38.64, partly crystg. on standing. A better procedure was to treat the bromide with Zn, sat. the mixt. with NH_3 at 0°, and let stand 2–3 days. The glycol above with PBr_3 and pyridine gave 43% of the *bis(bromomethyl)cyclopropane*, b_{18} 83–7°, d_4^{15} 1.7895, n_D^{15} 1.53643, γ^{20} 37.94. This with Zn dust in EtOH with simultaneous distn. gave 47% *hydrocarbon* (II), b_{760} 41.5–2.5°, d_4^{15} 0.7357, n_D^{15} 1.4162, γ^{20} 20.37, which, hydrogenated over Pt oxide, readily took up 90% (of theoretical) H. Its consts. and behavior confirm its structure as *methylenecyclobutane* and not a trace of spiropentane was found. Hydrogenation of the Gustavson hydrocarbon gives a time curve with a break indicating hydrogenation of 2 components, whereas II gave a smooth curve; ozonolysis gave cyclobutanone and HCO_2H only. The isomerization to the cyclobutane ring appears to occur mainly during the treatment of the dibromide, probably with formation of 1-bromo-1-(bromomethyl)cyclobutane from 1,1-bis(bromomethyl)cyclopropane. The Raman spectrum of the dibromide contains elements of 3- and 4-membered rings.

G. M. Kosolapoff

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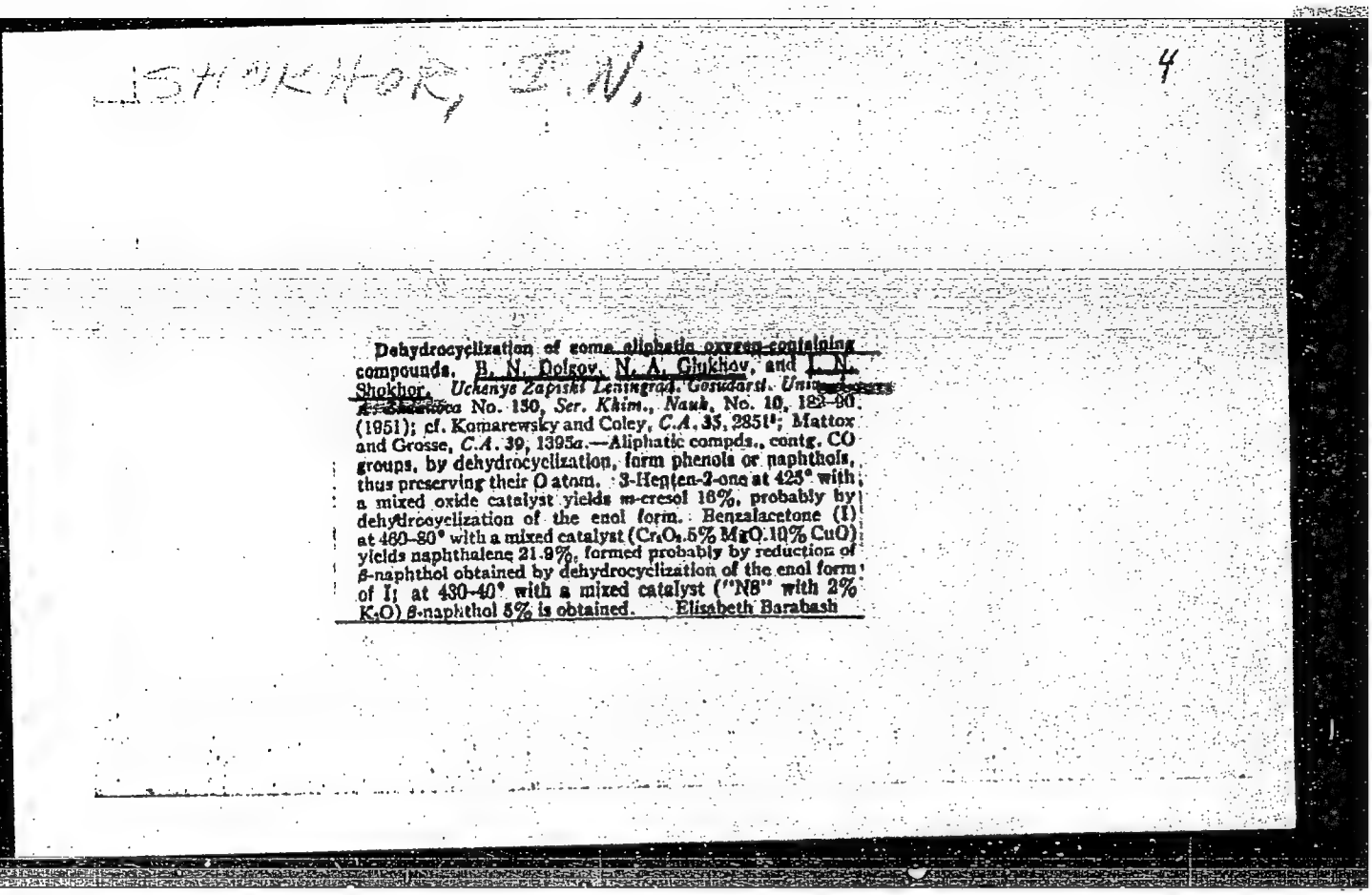

SHOKHOR, E. N.

4

Dehydrocyclization of some aliphatic oxygen-containing compounds. B. N. Dolgov, N. A. Glukhov, and E. N. Shokhor. *Uchenye Zapiski Leningrad. Gosudarst. Univ. im. A. A. Zhdanova* No. 150, *Ser. Khim., Nauk*, No. 10, 122–30 (1951); cf. Komarewsky and Coley, *C.A.* 35, 2851[8]; Mattox and Grosse, *C.A.* 39, 1395*a*.—Aliphatic compds., contg. CO groups, by dehydrocyclization, form phenols or naphthols, thus preserving their O atom. 3-Hepten-2-one at 425° with a mixed oxide catalyst yields *m*-cresol 16%, probably by dehydrocyclization of the enol form. Benzalacetone (I) at 480–80° with a mixed catalyst (Cr_2O_3 5% MgO 10% CuO) yields naphthalene 21.9%, formed probably by reduction of β-naphthol obtained by dehydrocyclization of the enol form of I; at 430–40° with a mixed catalyst ("N8" with 2% K_2O) β-naphthol 5% is obtained. Elisabeth Barabash

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SLOBODIN, YA. M., SHCHEGR, I. N.

Cyclopropylacetylene

Cyclopropylacetylene Zhur. ob. khim. 22, No. 2, 1952.

Monthly List of Russian Accessions, Library of Congress, August 1952. Unclassified.

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USSR/Chemistry - Hydrocarbons Feb 52

"Action of PCl_3 and PBr_3 on Methylcyclopropylcarbinol," Ya. M. Slobodin, I. N. Shokhor

"Zhur Obshch Khim" Vol XXII, No 2, pp 208-214

By means of Raman spectroscopy, identified products of interaction of PBr_3 with methylcyclopropylcarbinol (I) as α-bromoethylcyclopropane and about 70% 5-bromopentene-2. Established that α-chloroethylcyclopropane, product of interaction of PCl_3 with I, undergoes opening of ring only to small extent. During its prepn and treatment it is subjected to

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USSR/Chemistry - Hydrocarbons (Contd) Feb 52

partial splitting off of HCl (10-15%) to form 75% vinylcyclopropane (II) and 25% trans-piperylene. Synthesized II and took its Raman spectrum.

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SHOKHOR, I. N.

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Shokhor, I.N.

3

CZECH.

Structure of Gustavson's hydrocarbon. IV. Intermediate products of stepwise synthesis of spiropentane. Va. I. Slobodin and I. N. Shokhor. *Sbornik Statei Obshchei Khim.* 2, 8[illegible] (1953); cf. Gustavson, *Izvest. Imper. Akad. Nauk* 5, 247(1896); *C.A.* 48, 12681*d*.—In the stepwise synthesis of spiropentane, during the closure of the 1st 3-membered ring there takes place a partial transformation into a 4-membered ring, which change is completed when the final product is prepd. Olefin formation occurs to a lesser degree. The cleavage of Br in the final step in the presence of Na_2CO_3 and NaI yields a hydrocarbon mixt. contg. about 10% spiropentane. The 1,1-dimethylolcyclopropane (*loc. cit.*) prepd. from the diacetate contains a mixt. of products with 3- and 4-membered rings. Oxidation of this with $K_2Cr_2O_7$ in aq. H_2SO_4 gave cyclopropanedicarboxylic acid and $(CH_3CO_2H)_2$. Methylenecyclobutane (23 g.) in Et_2O treated with 65 g. [illegible] with ice cooling yielded 65 g. *1-bromomethyl-1-bromocyclobutane*, b_{12} 78-80°, d_{20} 1.7944, n_D^{20} 1.53531, Raman spectrum (cm.$^{-1}$) 186(2), 203(8), 432-(3), 611(3), [illegible](2), [illegible], [illegible](2), 728(2), 906(6), 923(4), [illegible] 19[illegible](2), 122[illegible] 1328(4), 1346(1), 1425(4), and 1[illegible](4). This with Zn dust yielded 80% pure *methylenecyclobutane*, b_{10} 41.6-2[illegible], n_D^{20} 1.4186, Raman spectrum 352(5), 374(1), 658(5), 777(1), 874(1), 906(3), 952(10), 1191(2), 1398(3), 1427(2), 1670(8), 2867(1), 2908(8), 2949-(8), and 3068(2). Refluxing the dibromide with AgOAc and AcOH 6 hrs. gave pure *1-(hydroxymethyl)cyclobutanol*

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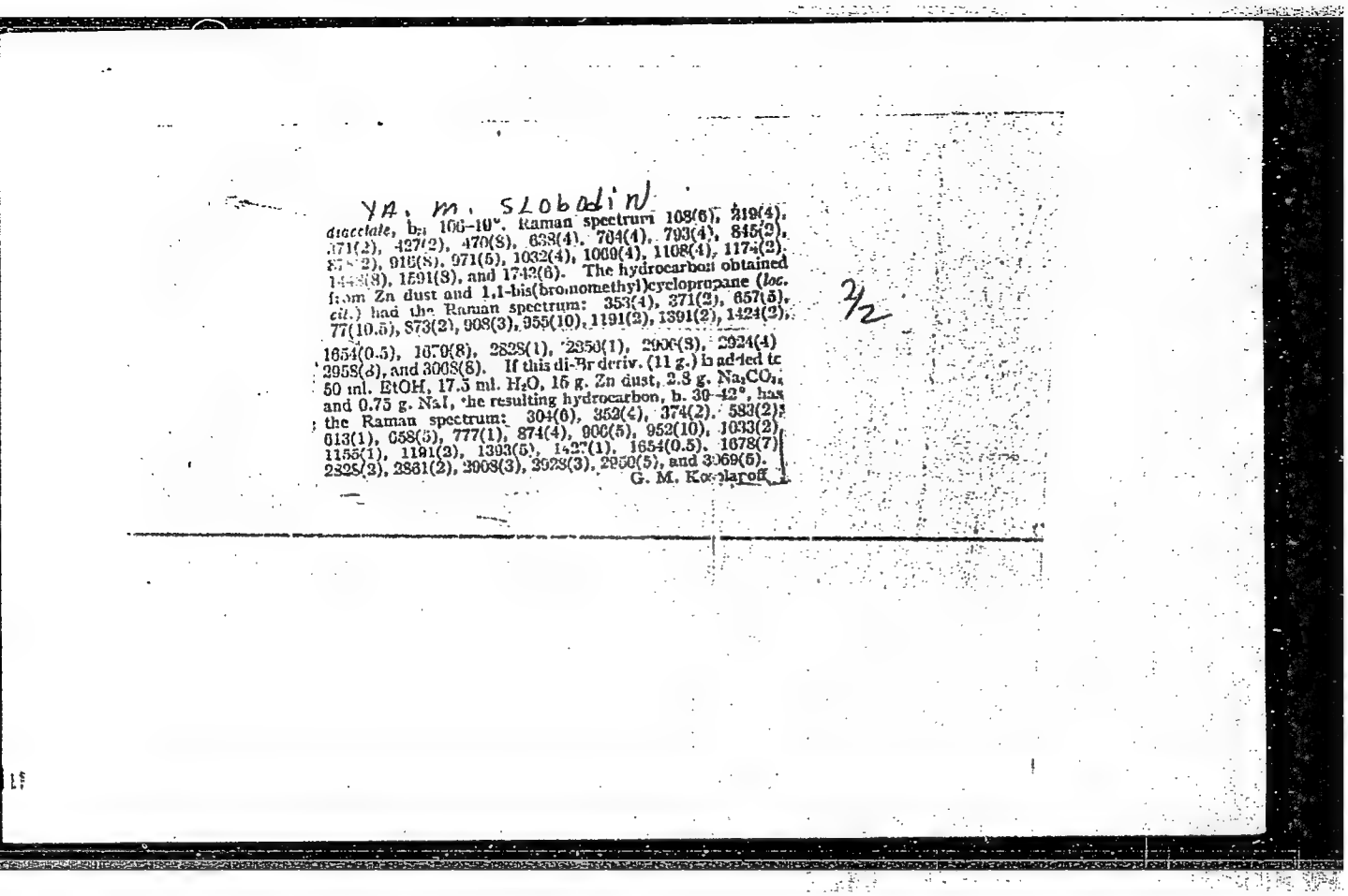

YA. M. SLOBADIN

diacetate, b_{12} 106–10°. Raman spectrum: 108(6), 219(4), 371(2), 427(2), 470(8), 633(4), 704(4), 793(4), 845(2), 875(2), 915(8), 971(5), 1032(4), 1069(4), 1108(4), 1174(2), 1443(8), 1691(8), and 1742(6). The hydrocarbon obtained from Zn dust and 1,1-bis(bromomethyl)cyclopropane (*loc. cit.*) had the Raman spectrum: 353(4), 371(2), 657(5), 777(10.5), 873(2), 908(3), 955(10), 1191(2), 1391(2), 1424(2), 1654(0.5), 1679(8), 2828(1), 2850(1), 2906(8), 2924(4) 2958(3), and 3068(8). If this di-Br deriv. (11 g.) is added to 50 ml. EtOH, 17.5 ml. H_2O, 16 g. Zn dust, 2.3 g. Na_2CO_3, and 0.75 g. NaI, the resulting hydrocarbon, b. 30–42°, has the Raman spectrum: 304(6), 352(4), 374(2), 583(2), 613(1), 658(5), 777(1), 874(4), 900(5), 952(10), 1033(2), 1155(1), 1191(2), 1393(5), 1427(1), 1654(0.5), 1678(7), 2825(2), 2861(2), 2908(3), 2928(3), 2950(5), and 3069(6).

G. M. Kosolapoff

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SHOKHOR I.N.

Cyclopropane(1,5-spiro)-2,4,6-trioxohexahydropyrimidine. Va. I. Shchodlin and I. N. Shokhor. *Sbornik Statei Obshchel Khim.* 2, 850-2(1953).—To EtONa from 3.5 g. Na and 80 ml. EtOH was added with cooling 10 g. di-Et 1,1-cyclopropanedicarboxylate and 6 g. urea, the mixt. stirred 0.5 hr., finally at room temp., and the gel was treated with 50 ml. H_2O and neutralized with HCl, yielding 60% $(CH_2)_2C(CONH)_2CO$, (I), decomp. 330°. The same product forms at room temp., but the yield declines at 60°. I is similarly obtained from 1 g. Na in 50 ml. EtOH, treated with 2.6 g. 1,1-cyclopropanedicarboxamide and 2.3 g. $C(OEt)_4$. Refluxing I with 20% KOH 4 hrs. gave cyclopropanedicarboxylic acid, m. 140°; amide, m. 193°.

G. M. Kosolapoff

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SHOKHOR, I.N.

The structure of Gustavson's hydrocarbon. III. Action of zinc dust on tetrahaloneopentanes. Ya. M. Slobodin and I. N. Shokhor. *J. Gen. Chem. U.S.S.R.* 23, 37–41 (1953) (Engl. translation).—See *C.A.* 48, 543a.
H. L. H.

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Shokhor, L. N.

Decomposition of trimethylcrotylammonium hydroxide. Ya. M. Slobodin and L. N. Shokhor. *Zhur. Obshchel Khim.* 23, 735-6(1953); cf. C.A. 48, 12339g.—MeCH:CHCH$_2$OH (40 g.) and 6 g. pyridine added to 30 g. PCl_3 with cooling and stirred 1 hr. longer at room temp. gave 26 g. *2-butenyl chloride*, b. 83-4°, $n^{25}D$ 1.4352, Raman spectrum (cm.$^{-1}$) 352(8), 488(2), 672(6), 782(5), 1077(3), 1181(4), 1243(5), 1314(4), 1384(2), 1440(5), and 1673(10). This (26 g.) with a 2-fold excess of Me_3N kept in sealed tube 40 hrs. gave a ppt. of $Me_3N(CH_2CH:CHMe)Cl$. This (15 g.) and a slight excess 40% KOH (free of carbonates) were distd. into a chilled receiver, yielding $(CH:CH_2)_2$, (characterized as the tetrabromide, m. 114°). No $CH_2:C:CHMe$ was found.

G. M. Kosolapoff

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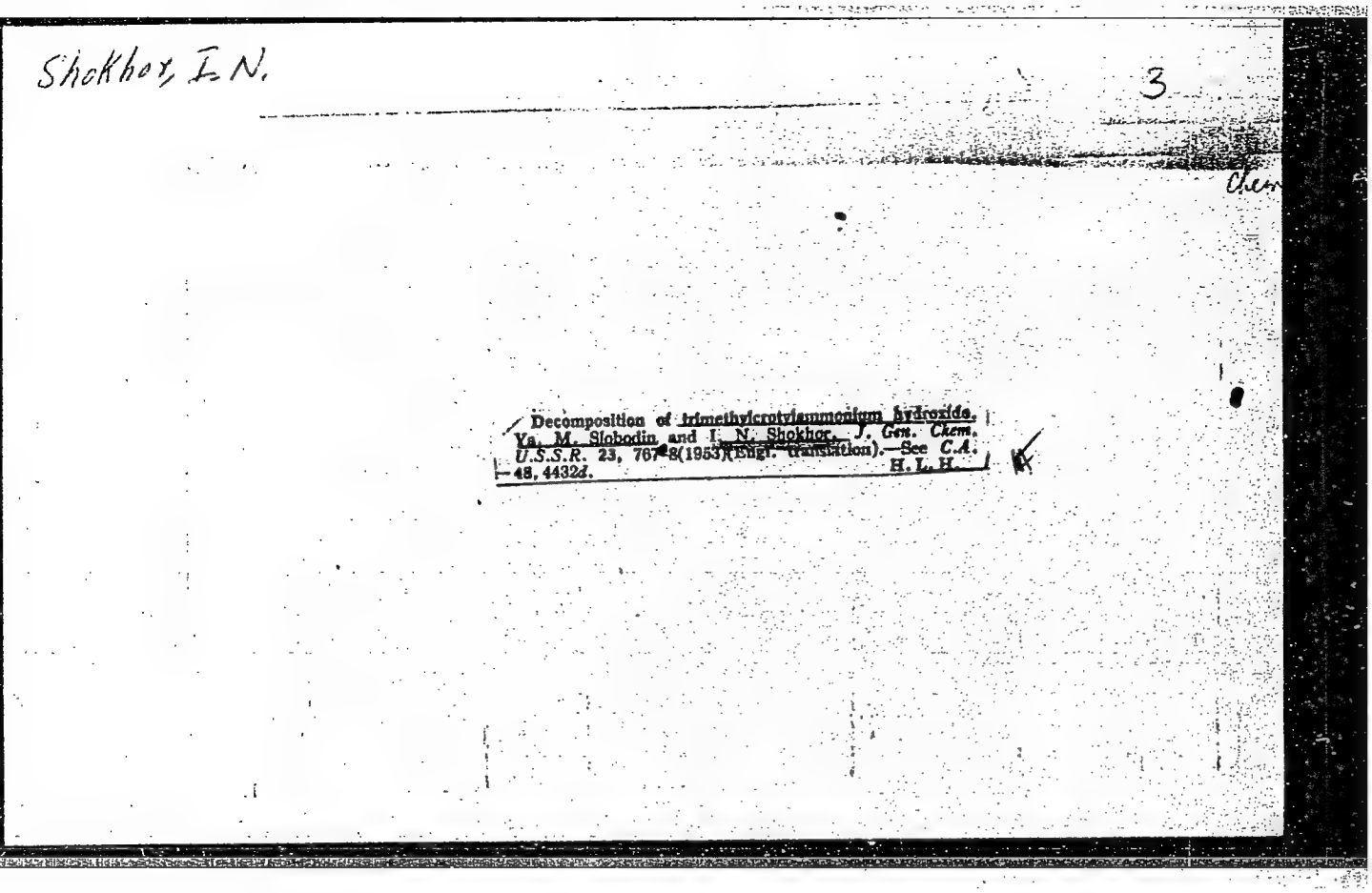

Shokhor, I. N.

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Chem

Decomposition of trimethylcrotylammonium hydroxide. Ya. M. Slobodin and I. N. Shokhor. *J. Gen. Chem. U.S.S.R.* 23, 767-8(1953)(Engl. translation).—See *C.A.* 48, 4432d. H. L. H.

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SHOKIN, I. N.; SOLOV'YEVA, A. S.

Increasing the stability of ammonium bicarbonate. Trudy MKHTI no.35:43-47 '61. (MIRA 14:10)
(Ammonium carbonate)

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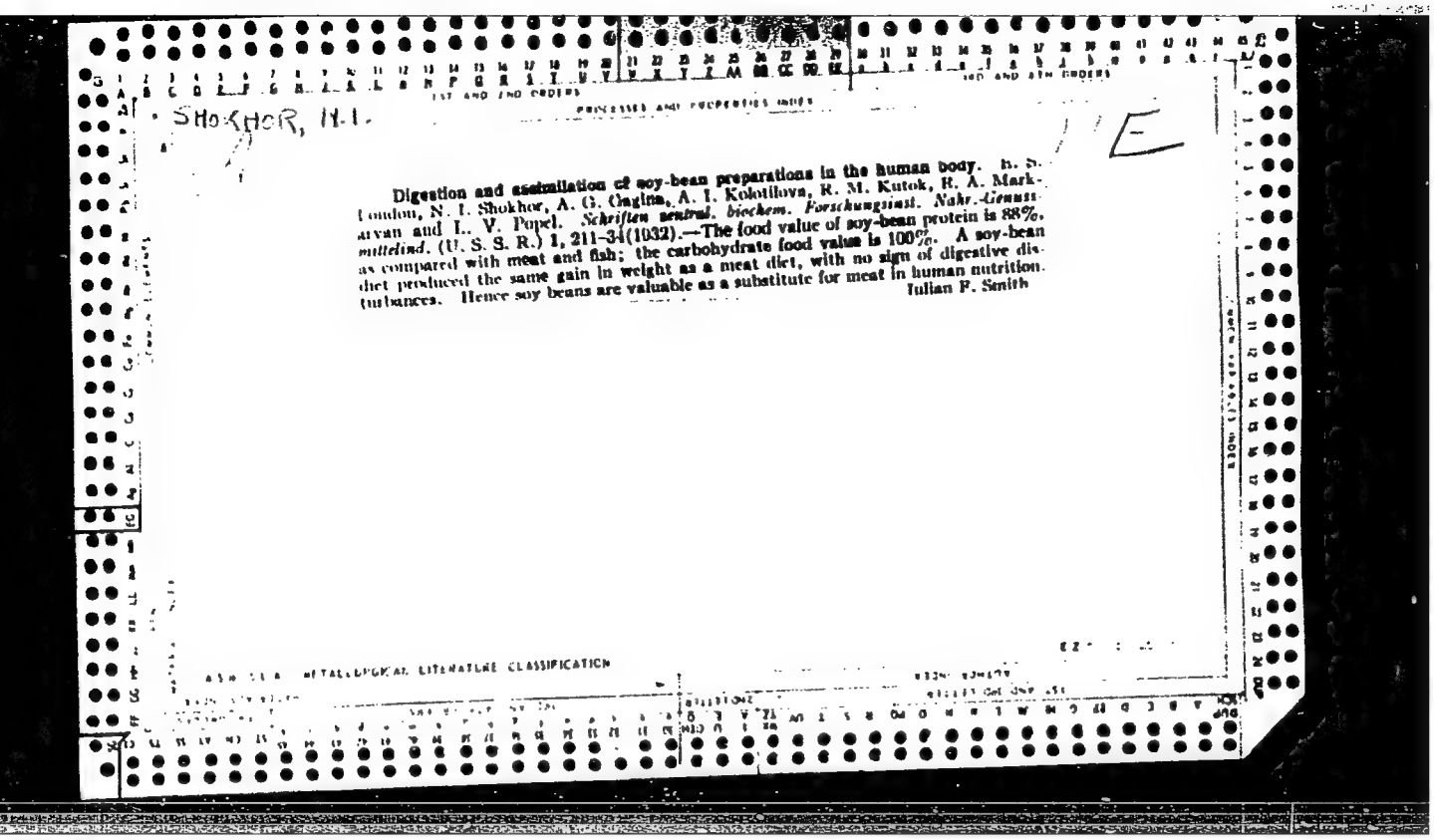

SHOKHOR, N.I.

Digestion and assimilation of soy-bean preparations in the human body. B. S. London, N. I. Shokhor, A. G. Ongina, A. I. Kolotilova, R. M. Kutok, R. A. Markaryan and L. V. Popel. *Schriften zentral. biochem. Forschungsinst. Nahr.-Genussmittelind.* (U. S. S. R.) 1, 211-34(1932).—The food value of soy-bean protein is 88%, as compared with meat and fish; the carbohydrate food value is 100%. A soy-bean diet produced the same gain in weight as a meat diet, with no sign of digestive disturbances. Hence soy beans are valuable as a substitute for meat in human nutrition.
Julian F. Smith

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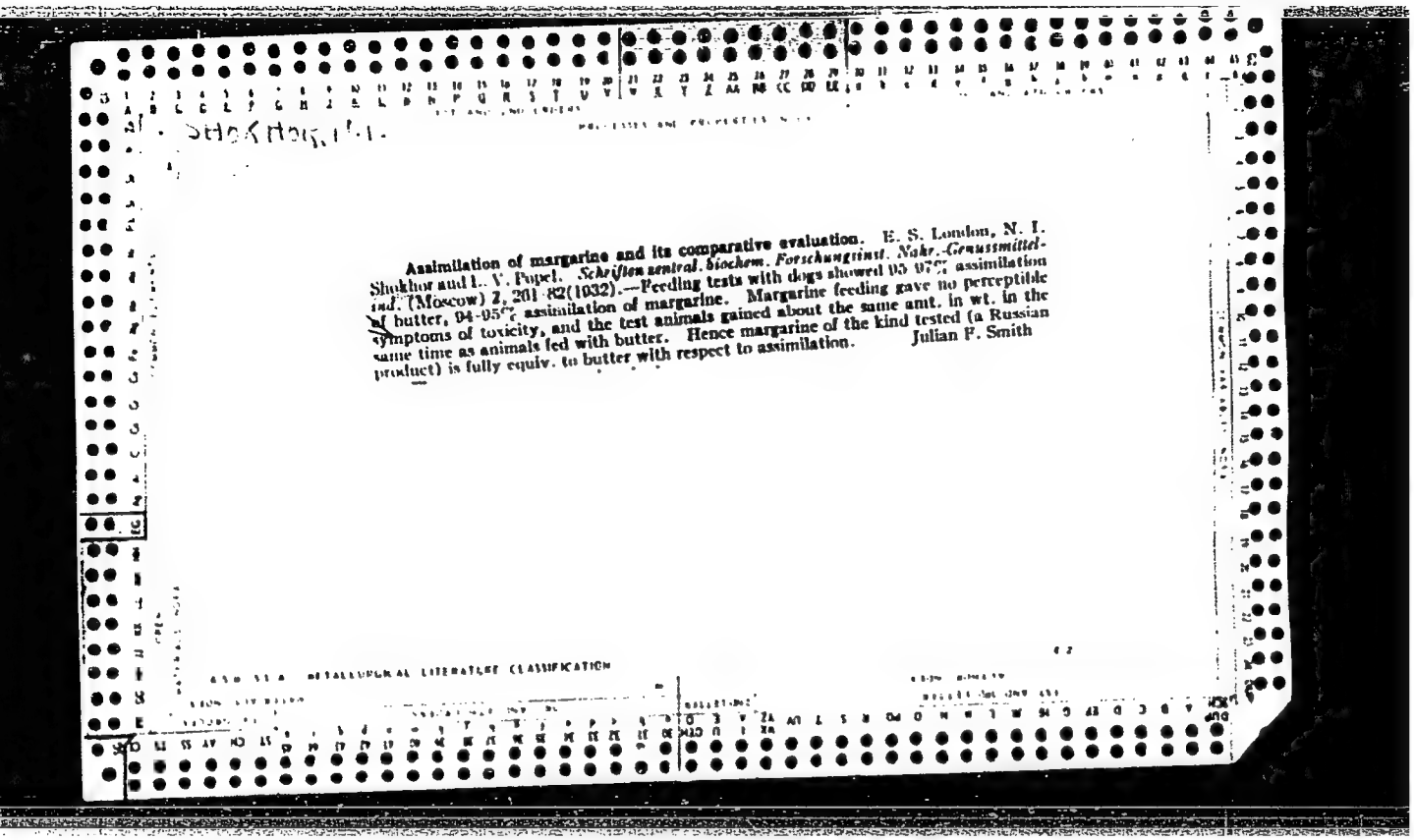

Assimilation of margarine and its comparative evaluation. E. S. London, N. I. Shokhor and L. V. Popel. *Schriften zentral. biochem. Forschungsinst. Nahr.-Genussmittel-ind.* (Moscow) 2, 201–82(1932).—Feeding tests with dogs showed 95–97% assimilation of butter, 94–95% assimilation of margarine. Margarine feeding gave no perceptible symptoms of toxicity, and the test animals gained about the same amt. in wt. in the same time as animals fed with butter. Hence margarine of the kind tested (a Russian product) is fully equiv. to butter with respect to assimilation. Julian F. Smith

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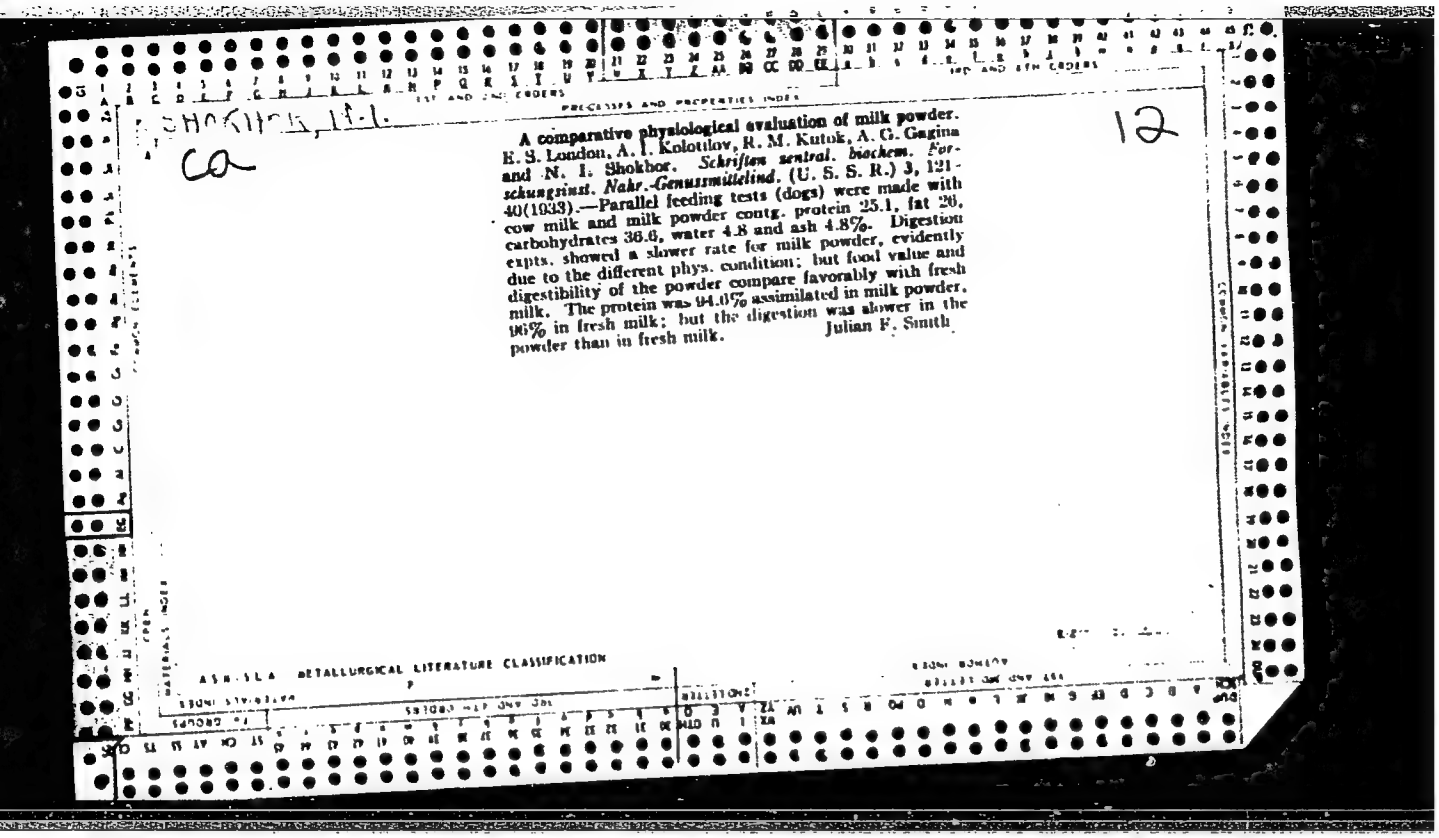

SHOKHOR, N. I.

Ca

12

A comparative physiological evaluation of milk powder. E. S. London, A. I. Kolotilov, R. M. Kutuk, A. G. Gagina and N. I. Shokhor. *Schriften zentral. biochem. Forschungsinst. Nahr.-Genussmittelind.* (U. S. S. R.) 3, 121-40(1933).—Parallel feeding tests (dogs) were made with cow milk and milk powder contg. protein 25.1, fat 26, carbohydrates 38.6, water 4.8 and ash 4.8%. Digestion expts. showed a slower rate for milk powder, evidently due to the different phys. condition; but food value and digestibility of the powder compare favorably with fresh milk. The protein was 94.0% assimilated in milk powder, 96% in fresh milk; but the digestion was slower in the powder than in fresh milk. Julian F. Smith

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS

SHOKHOR, N.I.

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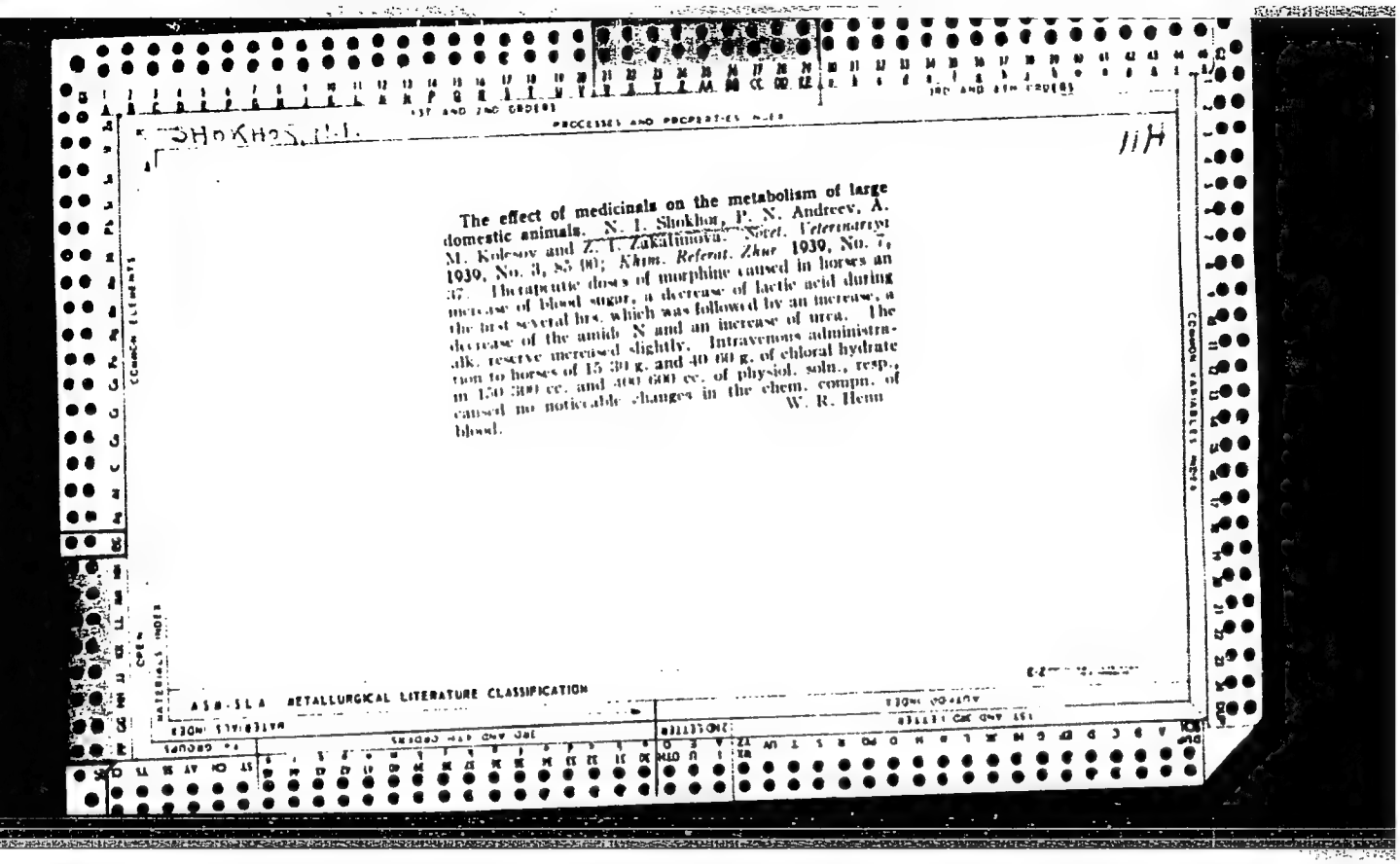

The effect of medicinals on the metabolism of large domestic animals. N. I. Shokhor, P. N. Andreev, A. M. Kolesov and Z. I. Zakatimova. *Sovet. Veterinariya* 1939, No. 3, 85-90; *Khim. Referat. Zhur.* 1939, No. 7, 37. Therapeutic doses of morphine caused in horses an increase of blood sugar, a decrease of lactic acid during the first several hrs. which was followed by an increase, a decrease of the amide N and an increase of urea. The alk. reserve increased slightly. Intravenous administration to horses of 15-30 g. and 40-60 g. of chloral hydrate in 150-300 cc. and 400-600 cc. of physiol. soln., resp., caused no noticeable changes in the chem. compn. of blood. W. R. Henn

COMMON ELEMENTS

COMMON VARIABLES INDEX

MATERIALS INDEX

OPEN

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SHOKHOR, N. I.

600

1. SHOKHOR, N. I.,

2. USSR (600)

Pnevmatika Plant "The Arrangement of Planet Pinions in the Planetary Reducing Gear" Stanki i Instrument, 12, No. 1, 1941.

9. [redacted] Report U-1503, 4 Oct. 1951

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549820014-7

SHOKHOR, N. I., Prof.

"Pathological Physiology. Third revised and Supplemented Edition. OGIZ - Sel'khozgiz, Moscow, 1947. Revised by Meshcheriakov, Lect., Cand. of Vet. Sci., Head of the Dept. of Pathological Physiology, Kazan State Vet. Inst."

SO: Veterinariia 25(3), 1948, p. 47

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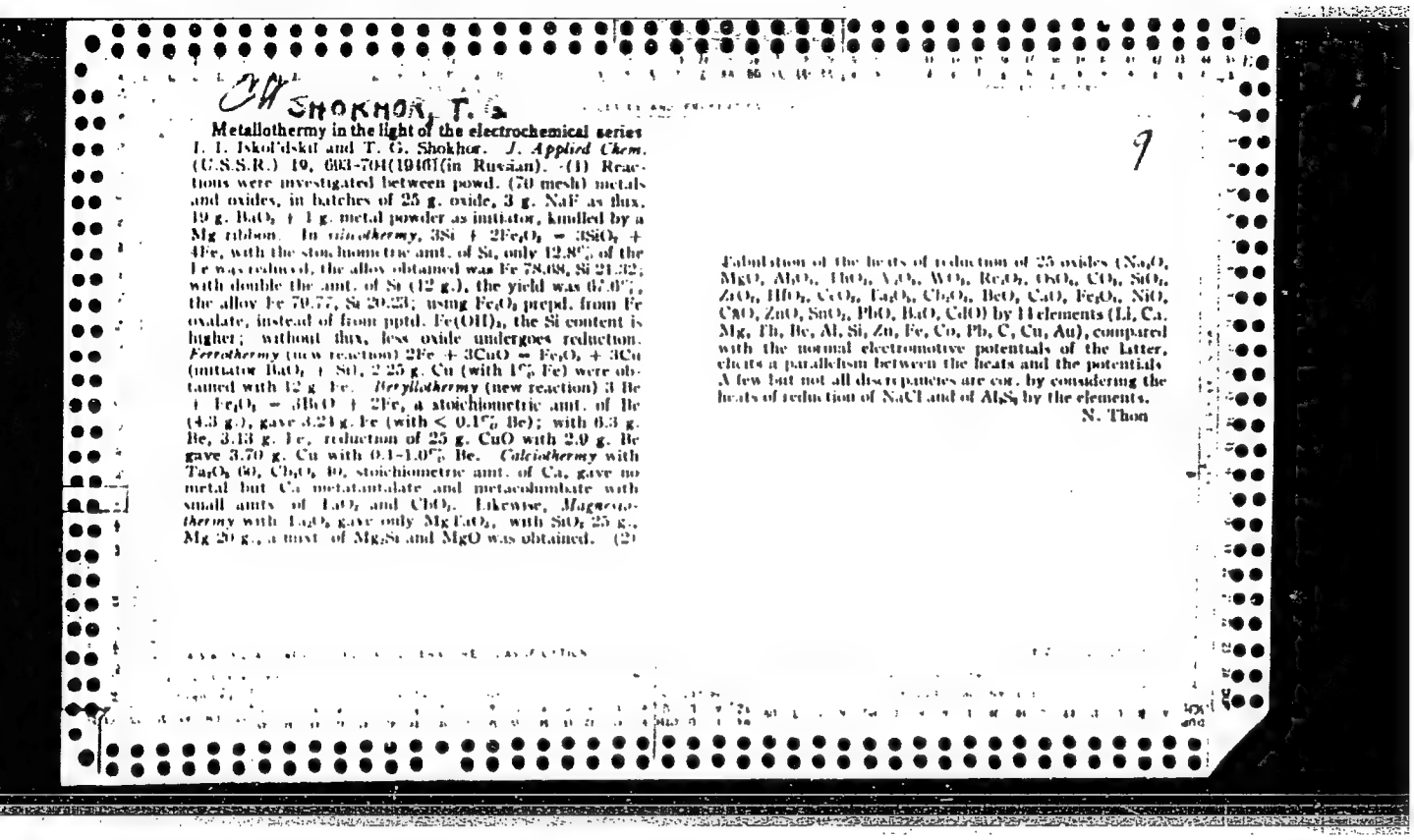

SHOKHOR, T. G.

9

Metallothermy in the light of the electrochemical series

I. I. Iskol'dskil and T. G. Shokhor. *J. Applied Chem.* (U.S.S.R.) 19, 693-704(1946)(in Russian). (1) Reactions were investigated between powd. (70 mesh) metals and oxides, in batches of 25 g. oxide, 3 g. NaF as flux, 19 g. BaO_2 + 1 g. metal powder as initiator, kindled by a Mg ribbon. In *silicothermy*, $3Si + 2Fe_2O_3 = 3SiO_2 + 4Fe$, with the stoichiometric amt. of Si, only 12.8% of the Fe was reduced, the alloy obtained was Fe 78.08, Si 21.32; with double the amt. of Si (12 g.), the yield was 67.0%, the alloy Fe 70.77, Si 20.23; using Fe_2O_3 prepd. from Fe oxalate, instead of from pptd. $Fe(OH)_3$, the Si content is higher; without flux, less oxide undergoes reduction. *Ferrothermy* (new reaction) $2Fe + 3CuO = Fe_2O_3 + 3Cu$ (initiator BaO_2 + Si), 2.25 g. Cu (with 1% Fe) were obtained with 12 g. Fe. *Beryllothermy* (new reaction) $3Be + Fe_2O_3 = 3BeO + 2Fe$, a stoichiometric amt. of Be (4.3 g.), gave 3.21 g. Fe (with < 0.1% Be); with 0.3 g. Be, 3.13 g. Fe, reduction of 25 g. CuO with 2.0 g. Be gave 3.70 g. Cu with 0.1-1.0% Be. *Calciothermy* with Ta_2O_5 (6), Cb_2O_5 (6), stoichiometric amt. of Ca, gave no metal but Ca metatantalate and metacolumbate with small amts of TaO_2 and CbO_2. Likewise, *Magnesiothermy* with Ta_2O_5 gave only $MgTaO_3$, with SiO_2 25 g., Mg 20 g., a mixt. of Mg_2Si and MgO was obtained. (2) Tabulation of the heats of reduction of 25 oxides (Na_2O, MgO, Al_2O_3, ThO_2, V_2O_5, WO_3, Re_2O_7, CbO_2, CO_2, SiO_2, ZrO_2, HfO_2, Ce_2O_3, Ta_2O_5, Cb_2O_5, BeO, CaO, Fe_2O_3, NiO, CrO, ZnO, SnO_2, PbO, BaO, CdO) by H elements (Li, Ca, Mg, Th, Be, Al, Si, Zn, Fe, Co, Pb, C, Cu, Au), compared with the normal electromotive potentials of the latter, elicits a parallelism between the heats and the potentials. A few but not all discrepancies are cor. by considering the heats of reduction of NaCl and of $AlSi$ by the elements.

N. Thon

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549820014-7

SHOKHOR, T.G.

Determination of rare earth in marine deposits. E. A. Ostrovskaya, A. A. Astanina and T. G. Shokhor. *Trudy* [illegible] 1956.

The method of [illegible] (cf. Col. 35, 8016[illegible]) is adopted for detn. of small amts. of rare earth in the presence of large quantities of interfering Fe and Al. The [illegible] is used [illegible] acid. The gravimetric [illegible] satisfactory for total quantities of rare earth of the order of [illegible] g. Smaller quantities are detd. by x-ray spectroscopy. The method is checked on artificial bauxite samples with known amts. of added rare earth and on samples from the bottom of the Black Sea.

B. Deklau

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BEYN, E.S.; GERTSENSHTEYN, E.N.; RUDENKO, Z.Ya.; TAPTAPOVA, S.L.; CHERNOVA, A.D.; SHOKHOR-TROTSKAYA, M.K.; KUKUYEV, L.A., red.; KUZ'MINA, M.S., tekhn. red.

[Handbook on the recovery of speech by persons affected with aphasia] Posobie po vosstanovleniiu rechi u bol'nykh afaziei. Pod red. E.S.Bein. Moskva, Medgiz, 1962. 335 p. (MIRA 15:5)

(APHASIA) (SPEECH THERAPY)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549820014-7

SHOKHOV, I.S., kand. tekhn. nauk.

Electric methods for metal coating. Mashinostroitel' no.1:23-24 Ja '58. (MIRA 11:1)
(Electroplating)

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PHASE I BOOK EXPLOITATION SOV/4594

Shokhov, Ivan Samsonovich

Uprochneniye rezhushchikh, shtampovykh i izmeritel'nykh instrumentov (Surface Hardening of Cutting, Stamping and Measuring Tools) Moscow, Trudrezervizdat, 1959. 94 p. (Series: Novaya tekhnika i peredovyye metody truda) 5,000 copies printed.

Scientific Ed.: Ye.A. Pankina: Ed.: A.L. Bashkovich; Tech. Ed.: A.M. Toker.

PURPOSE: This booklet is intended for foremen, teachers in engineering trade schools, and it also may be useful to workers in the machine-building industry.

COVERAGE: The booklet presents data on the surface-hardening of the working surfaces of cutting, stamping, and measuring tools by chromium plating and by thermochemical treatment in the solid, liquid and gaseous media. The author provides examples of the chromium plating of some tools done in accordance with the new group-processing method developed by S.P. Mitrofanov, Lenin Prize winner. No personalities are mentioned. There are 20 references, all Soviet.

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549820014-7

SHOKHOV, P.A., elektromekhanik

How to prevent short-circuits in ABN-72 storage batteries. Avtom., telem. i sviaz' 9 no.8:34 Ag '65. (MIRA 18:9)

1. Vologodskaya distantsiya Severnoy dorogi.

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549820014-7

LENTSNER, A.A.; LIVSHITS, I.A.; SPIVAK, Ye.A.; SHOKHOVA, O.M. (g.Tartu)

Change in sensitivity to antibiotics of Newcastle dysentery bacillus in the human body before the beginning of treatment. Antibiotiki 7 no.7:643-646 Jl '62. (MIRA 16:10)
(ANTIBIOTICS) (DYSENTERY)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549820014-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549820014-7

SHOKHOVA, Z.V.; MOTORKINA, R.K.

Using heteropolycyclic compounds for gravimetric and volumetric determination of germanium. Vest.Mosk.un.Ser.mat.,mekh., astron., fiz.,khim. 12 no.2:183-193 '57. (MIRA 10:12)

1.Kafedra analiticheskoy khimii Moskovskogo universiteta.
(Germanium) (Heterocyclic compounds)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549820014-7

SHOKHRIN, Z.I.

Silvery jet. Znan. ta pratsia no.3:2-4 Mr '59.
(MIRA 12:10)
(Coal mining machinery)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549820014-7

SHOKHRIN, Z.I., gornyy inzh.

Hydraulic coal mining. Nauka i zhyttia 9 no.9:13-15 S '59.
(MIRA 13:1)

1.Nachal'nik gidroshakhty No.4 tresta "Ordzhonikidzeugol'," Stalinskaya oblast'.
(Stalino Province--Hydraulic mining)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549820014-7

SHOKHRIN, Z.O.

Efficient technical solutions to problems in planning and applying methods of underground hydraulic mining. Ugol' 32 no.4:6-12 Ap '57. (MLRA 10:5)

1. Podzemgidromekhanizatsiya.
(Hydraulic mining)

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SHOKHRIN, Z.O., gornyy inzh.

Experience achieved by the hydraulic mine no.4 of the Ordzhonikidzeugol' Trust. Ugol' 34 no.2:12-17 F '59. (MIRA 12:4)

1. Nachal'nik Gidroshakhty No.4.
(Donets Basin--Hydraulic mining)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549820014-7

SHOKHRIN, Z.O.

Some work results in a hydraulically mined section. Ugol' Ukr. 4 no.4:22-25 Ap '60. (MIRA 13:8)

1. Nachal'nik shakhty No. 4 tresta Ordzhonikidzeugol'.
(Donets Basin--Hydraulic mining)

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SHOKHTIN, A.P.

Examiner with an optical indicator. Izm.tekh. no.12:8 D '62. (MIRA 15:12)
(Level (Tool)—Testing)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549820014-7

SHOKIN, A.M.

Large metallurgical center in the Korean People's Republic.
Metallurg 6 no.3:38 Mr '61. (MIRA 14:5)

1. Referent po Koreyskoy Narodno-Demokraticheskoy Respublike Otdela mezhdunarodnogo knigoobmena Gosudarstvennoy biblioteki SSSR im. V.I. Lenina.
(Korea—Metallurgical plants)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549820014-7

ZHUKOVICH, A.V.; SHOKINA, A.V.

Encephalographic examinations in logoneurosis. Zhur. nevr. i psikh. 64 no. 12:1785-1791 '64. (MIRA 18:1)

1. Elektrofiziologicheskaya laboratoriya (zaveduyushchiy N.P. Bekhtereva) Leningradskogo neyrokhirurgicheskogo instituta im. Polenova.

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549820014-7

SHOKIN, G. (Saratov); SOLODOVNIKOV, P. (Saratov)

Voltmeter for recording corrosion. Zhil.-kom.khoz. 10 no.4:28-29 '60. (MIRA 13:6)
(Voltmeter)
(Saratov--Gas pipes--Corrosion)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549820014-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549820014-7

SIN, [illegible]; [illegible], G.N.; KUZNETSOVA, A.G.

Continuous method of the reduction of cuprous chloride by metallic copper. Trudy MKHTI no.47:103-110 '64.

Solubility of copper monochloride in aqueous solutions of NaCl, NaCl + $CuCl_2$ and NaCl + Na_2SO_4. Ibid.:111-114 (MIRA 18:9)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549820014-7

SHOKIN, I.I., inzh.

Investigating the wear resistance of gear wheels made of laminated wood plastics. Der.prom. 7 no.12:14-15 D '58. (MIRA 11:12)

1. Moskovskiy lesotekhnicheskiy institut.
(Laminated plastics) (Mechanical wear)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549820014-7

SHOKIN, I.I., inzh.

Experimental study of the strength and wear of cogwheels from resin indurated plywood and textolite. Nauch. trudy MLTI no.11: 85-100 '61 (MIRA 18:1)

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SHOKIN, A. I.

Retention of fitness during elbow ailments in tennis players. Teor. i prak. fiz. kult., 18 no.10:792-794 '55. (MLRA 9:1)

(ELBOW, diseases,
tennis elbow, continuation of training of tennis players in)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549820014-7

107-57-1-6/60

AUTHOR: Shokin, A., First Deputy of the Minister of the Radio-Engineering Industry, USSR

TITLE: Scientists and Radio Specialists Answer Questions of Editors (Na voprosy redaktsii otvechayut uchenyye i radiospetsialisty)

PERIODICAL: Radio, 1957, Nr 1, pp 6-7 (USSR)

ABSTRACT: The questions of the "Radio" journal were: (1) On what problems should radio amateurs work at the present time in adopting radio and electronics in the national economy ? (2) In what field of radio engineering is their experimentation particularly desirable ?

Mass radio amateurism in the Soviet Union has a great importance for radio industry. Radio-amateur work is a source of skilled radio men, who are always sought by Soviet radio plants, design bureaus, and research organizations. Developmental work and mass experimentation by radio amateurs can help in solving many problems of improving radio circuits and radio-equipment parameters. To facilitate this work, better relations are necessary between DOSAAF radio clubs and radio-industry enterprises. At present, manufacture of radio receivers and TV sets has reached 1 million pieces a year, and saving in material is of great importance. A few rubles saved on one receiver or TV set can result in an overall saving of millions of rubles per year. Amateur designers can help greatly in this matter; they should improve radio circuits, transistorize them, and try to cut power consumption as far as possible. Amateurs should help in developing an inexpensive 3-band radio broadcast receiver with a VHF band. Amateurs

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Scientists and Radio Specialists Answer Questions of Editors

should also help in developing receiver kits, TV sets, etc. Other possibilities of amateur work are listed.

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LIKHACHEV, M.; SHOKIN, A.

World fair. Radio no.1:28-30 Ja '58. (MIRA 11:1)
(Brussels--Fairs)
(Radio--Receivers and reception)
(Television--Receivers and reception)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549820014-7

SHOKIN, A.I.

107-57-5-3/63

AUTHOR: Shokin, A., First Deputy Minister of Radio-Engineering Industry, USSR

TITLE: The Ways of Growth (Puti rosta)

PERIODICAL: Radio, 1957, Nr 5, pp 3-6 (USSR)

ABSTRACT: May 7th has been the "Radio Day" in the USSR. It has a special significance in 1957, the 40th anniversary of Soviet regime in Russia. A review of development of radio engineering and electronics in the Soviet Russia from November 7, 1917, up to 1957 is presented. All main events are noted and connected with policies of Soviet regime. Of later events the following specific points are worth noting:

First Soviet radars "Reven'" and "Redut" were designed and manufactured at the Radiotelegrafnyy zavod Morskogo vedomstva (Radio Telegraph Factory of the Navy Office) before WW2. In 1955 the radio-engineering industry (MRTP factories only) produced 20 times as much as in 1940. In 1956 the production was by 29% higher than in 1955. In 1957 a further growth by 23% is expected. Over the Fifth Five-Year Plan period the radio-engineering industry has started production of 750 new items. Over 6,500 items are being manufactured now. The number of research institutes and detached design bureaus has increased sixfold, and the number of specialists employed there tenfold over the period from 1946 to 1956; new are coming in 1957. At the present time the following items are being manufactured: 73 types of electron-beam devices, 225 types of shf devices, 229 types of receiving and amplifying tubes (some of them of a rice-grain size),

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The Ways of Growth

107-57-5-3/63

31 type of x-ray devices, 99 types of gas-discharge devices, 44 types of phototubes and counters, 287 types of special and conventional lighting lamps. Over 100 million electrovacuum devices, and over 20 million semiconductor devices are being turned out per year. Among many other things, various types of magnetrons, superpower klystrons, carcinotrons, TW tubes, etc. are being manufactured. Nearly one million capacitors and as much resistors are manufactured per day. A new material, "segnetoceramic", permitted creation of a new type of nonlinear capacitors. Extensive work is being done on modernization of processing and on organization of mass line production. The Sixth Five-Year Plan envisages introduction of 300 new mechanized, semi-automatic, and full-automatic production lines, of 700 new special machines. It is expected that these machines will be equivalent to 40 to 50 thousand workers. Despite a very steep rise curve the radio-engineering industry is still considered as lagging in its technical level and its economic conditions.

AVAILABLE: Library of Congress Nine photos in the article.

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549820014-7

SHOKIN, A I

AUTHOR: None Given SOV/108-13-8-11/12

TITLE: [Transactions of the] Conference on the Occasion of the 40th Anniversary of the Nizhniy-Novgorod Radio Laboratory imeni V.I. Lenin (Konferentsiya, posvyashchennaya sorokaletiyu Nizhegorodskoy radiolaboratorii imeni V.I. Lenina)

PERIODICAL: Radiotekhnika, 1958, Vol. 13, Nr 8, pp. 71-79 (USSR)

ABSTRACT: From May 22-24, a conference took place at Gorkiy which had been organized by the Gor'kiy Branch of the Scientific and Technical Society for Radio Engineering and Electric Telecommunication Service imeni A. S. Popov. The conference was attended by: B. A. Ostroumov, A. M. Kugushev, A. A. Pistol'kors, N. A. Nikitin, G. A. Ostroumov, V. P. Yakovlev, V. K. Ge, N. N. Pal'mov, F. A. Lbov, A. S. Nikolayenko, I. P. Koterov, S. I. Morugina, Ye. S. Sorokin et al. as well as by a group of former collaborators of the Tver' radiostation. A. M. Kugushev spoke about "The Nizhniy-Novgorod Radio Laboratory imeni V. I. Lenin, L. A. Kopytin on the development of the technique in radio engineering, the establishment of radio communication facilities and television apparatus. A. I. Shokin spoke about the development of the Soviet radio-engineering industry during the past 40 years.

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549820014-7

SOV/142-58-4-30/30

AUTHOR: Gaplichuk, O.M., Engineer

TITLE: Conference to Commemorate the Founding of the V.I.Lenin Radio Laboratory in Nizhniy Novgorod (Konferentsiya posvyashchennaya pamyati nizhegorodskoy radiolaboratorii imeni V.I.Lenina)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy - Radiotekhnika, 1958, Nr 4, pp 521-524 (USSR)

ABSTRACT: On May 22, 1958, a conference began in Gor'kiy to mark the 40 years anniversary of the founding of the V.I. Lenin Laboratory in Nizhniy Novgorod. Participants, who numbered over 400, included V.A.Volkova, Secretary of the Party Gorkom in Kalinin, and V.Ye.Skvortsov, Area Chairman for Communications in Kalinin. Speakers such as V.M.Leshchinskiy spoke on developments in Soviet radio engineering, and particularly on the radio laboratory in Nizhniy Novgorod. L.A.Kopytin spoke on "The development of radio-engineering, radio and television"; Professors B.A.Ostroumov and A.A.

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Conference to Commemorate the Founding of the V.I.Lenin Radio Laboratory in Nizhnyy Novgorod

Pistol'kors, N.N.Izotov, and N.N.Palmov spoke on their work with the radio laboratory; Ye.A.Popova-Kyandskaya (daughter of A.S.Popov) discussed the work of her father. Ya.M.Sorin examined "From the Crystal to the Transistor"; the Conference looked at current transistor production in the USSR. Ya.N.Nikolayev assessed the work of the Gor'kiy School regarding the oscillation theory, with special mention of Academician A.A.Andronov. Later, D.V.Ageyev spoke on the work of the Radio Department, Polytechnical Institute, Gor'kiy, and B.L.Lebedev discussed research on radio measuring. Professor L.L.Myasnikov evaluated the work of the Research Institute for Radio physics in Gor'kiy. O.N.Malakhov looked at the observations of radio-physicists during a recent expedition in China, April, 1958, the time of the solar eclipse. Finally, A.I.Shokin, Deputy Chairman, State Committee, Council of Ministers of the USSR on radio-electronics, gave a survey report "The Radio-Engineering Industry on the

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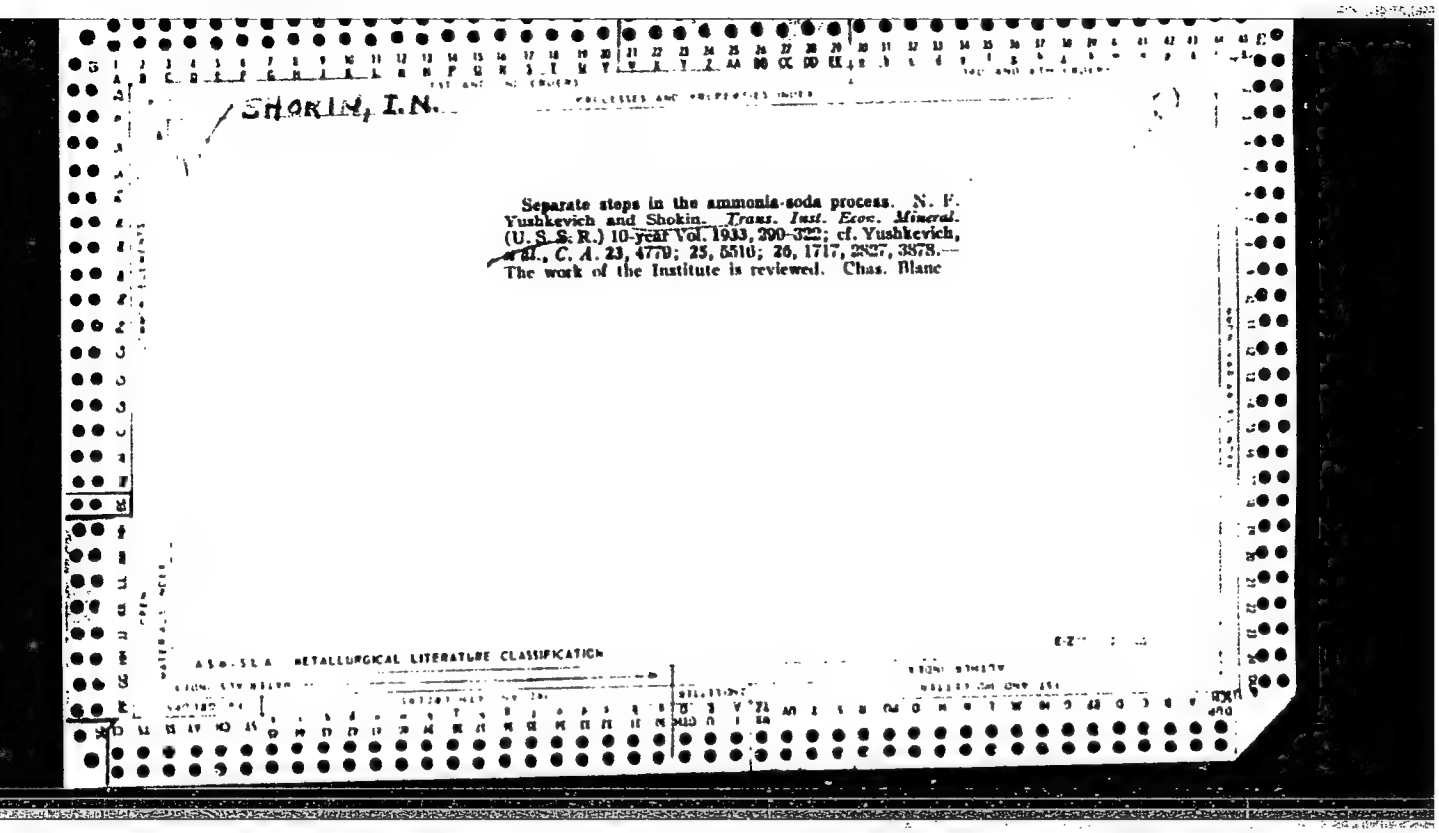

SHOKIN, I.N.

Separate steps in the ammonia-soda process. N. F. Yushkevich and Shokin. *Trans. Inst. Econ. Mineral.* (U. S. S. R.) 10-year Vol. 1933, 290-322; cf. Yushkevich, *ibid.*, *C. A.* 23, 4779; 25, 5510; 26, 1717, 2827, 3878.—The work of the Institute is reviewed. Chas. Blanc

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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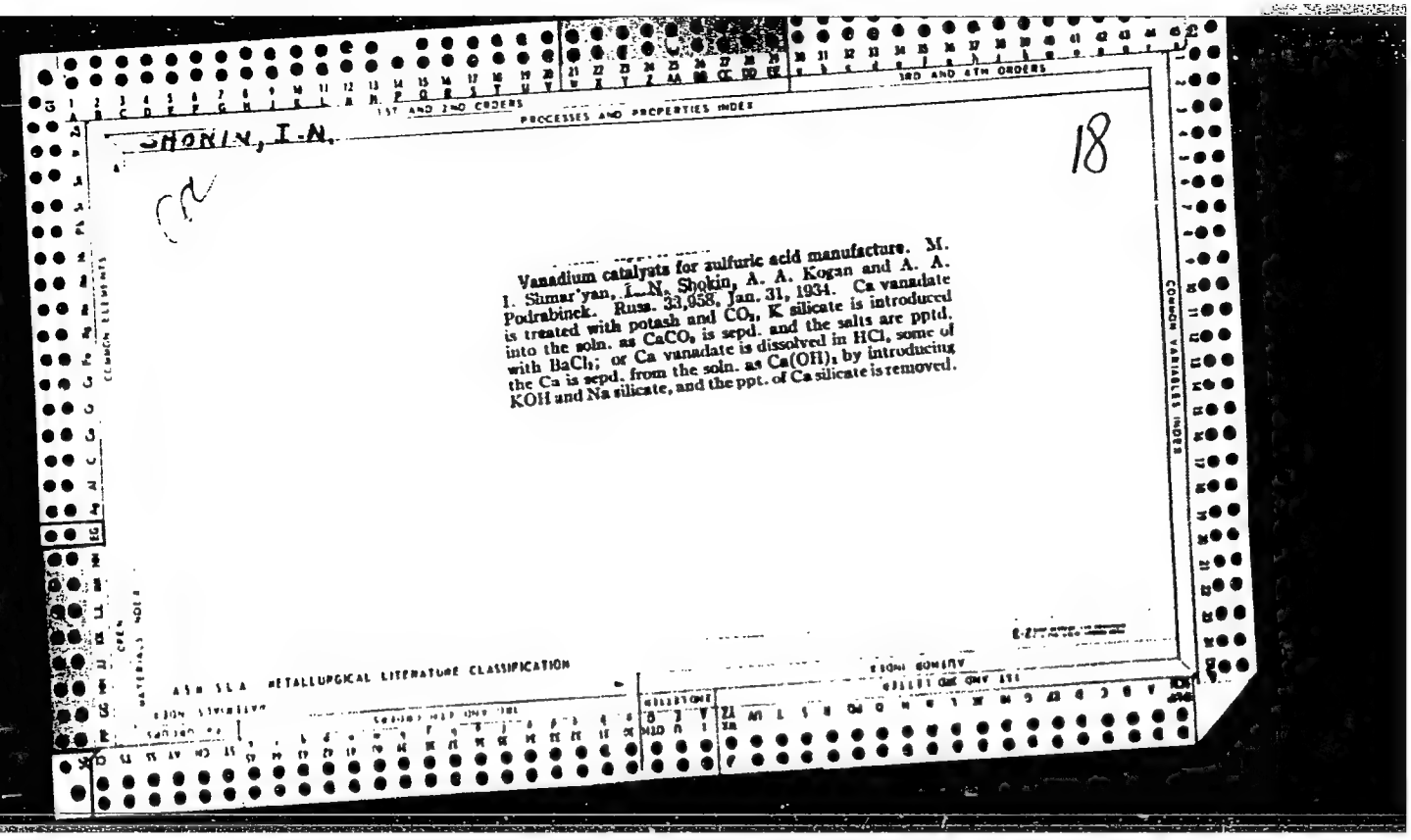
SHOKIN, I.N.

18

Vanadium catalysts for sulfuric acid manufacture. M. I. Shmar'yan, I. N. Shokin, A. A. Kogan and A. A. Podrabinek. Russ. 33,958, Jan. 31, 1934. Ca vanadate is treated with potash and CO_2, K silicate is introduced into the soln. as $CaCO_3$ is sepd. and the salts are pptd. with $BaCl_2$; or Ca vanadate is dissolved in HCl, some of the Ca is sepd. from the soln. as $Ca(OH)_2$ by introducing KOH and Na silicate, and the ppt. of Ca silicate is removed.

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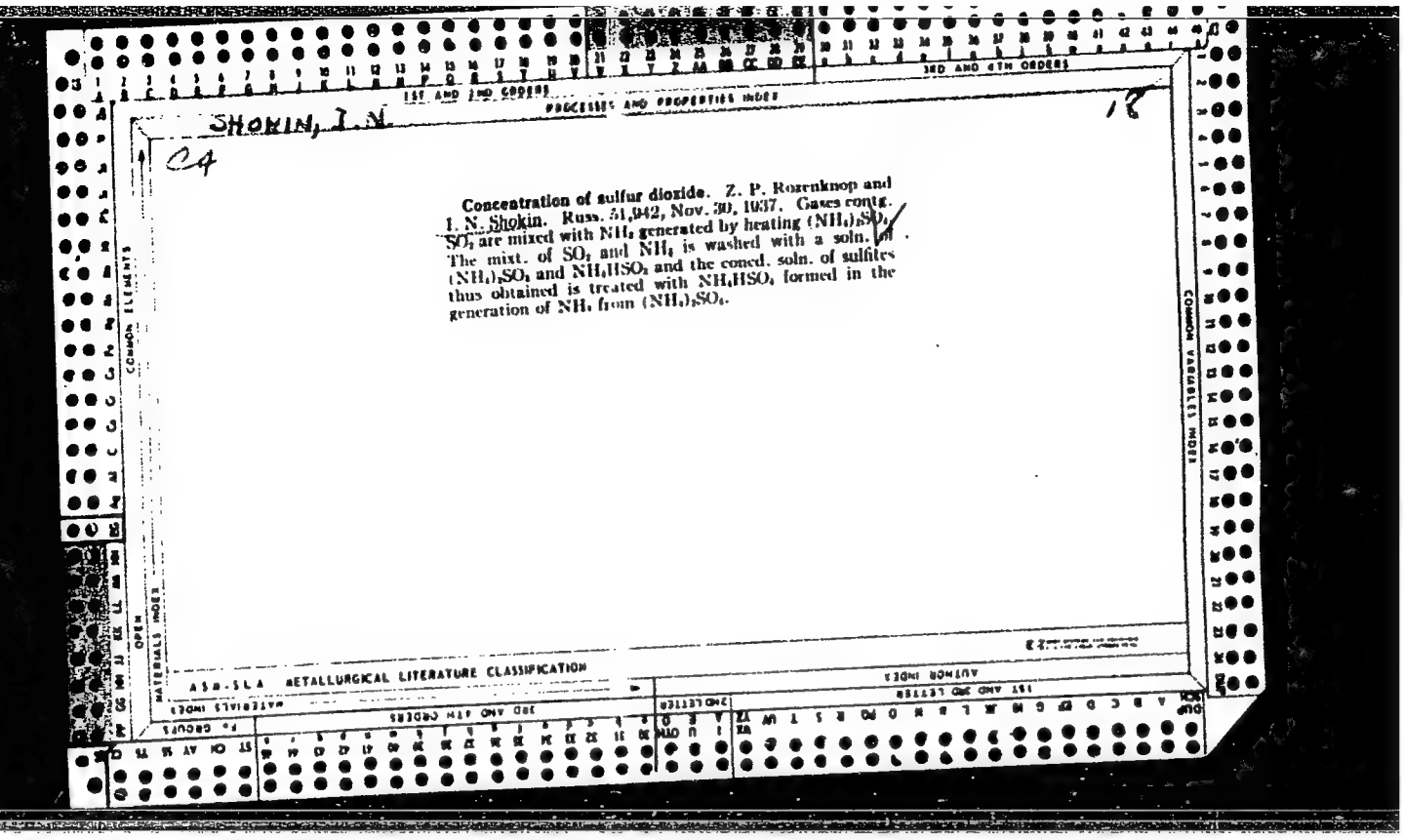

SHOKIN, I. N.

C4

18

Concentration of sulfur dioxide. Z. P. Rozenknop and I. N. Shokin. Russ. 51,942, Nov. 30, 1937. Gases contg. SO_2 are mixed with NH_3 generated by heating $(NH_4)_2SO_4$. The mixt. of SO_2 and NH_3 is washed with a soln. of $(NH_4)_2SO_3$ and NH_4HSO_3 and the concd. soln. of sulfites thus obtained is treated with NH_4HSO_4 formed in the generation of NH_3 from $(NH_4)_2SO_4$.

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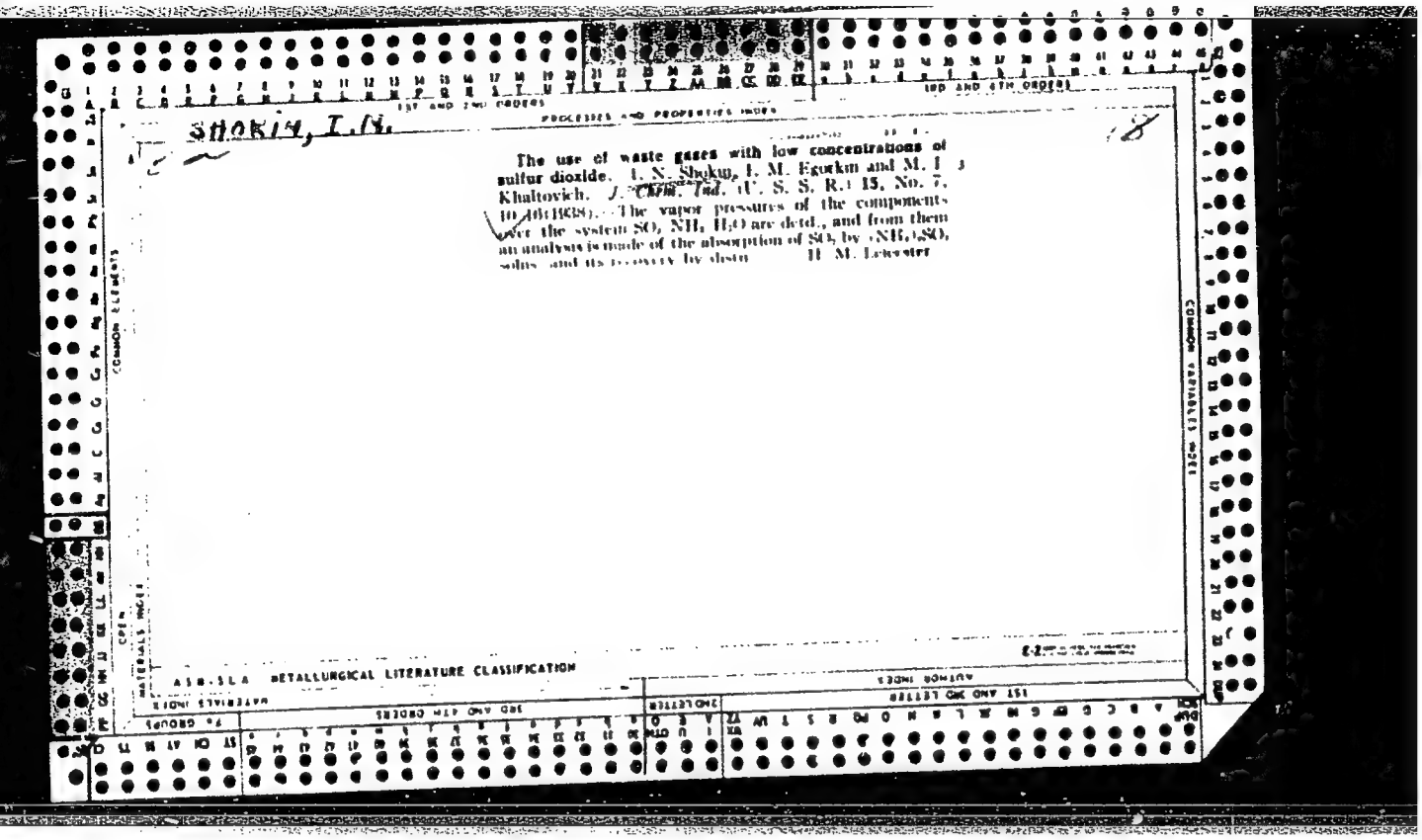

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SHOKIN, I.N.

Statistics of the process of carbonation of ammoniated brine. I. N. Shokin and A. S. Solov'eva (D. I. Mendeleev Chem. ~~Technol. Inst.~~, Moscow). *Zhur. Priklad. Khim.*, 26, 584–95(1953).—A method for calcg. the compn. of liquid and gaseous phases in Solvay carbonation system at equil. is presented. From reactions: $NH_4NH_2CO_2 + 2H_2O \rightleftarrows NH_4HCO_3 + NH_4OH \rightleftarrows (NH_4)_2CO_3 + H_2O$, equil. consts. were calcd.: $K_1 = gm/e$, $K_2 = f/gm$, and $K_3 = e/f$, where e = concn. of $[NH_4NH_2CO_2]$, f = $[(NH_4)_2CO_3]$, g = $[NH_4HCO_3]$, and m = $[NH_4OH]$. From exptl. data for K_1 and K_3 at 20, 40, and 60°, the following equations were found: $\log K_1 = -395/T + 1.67$, and $\log K_3 = -1322/T + 5.29$; $K_2 = 1/K_1K_3$. Soly. of $NaHCO_3 = L = [Na^+][HCO_3^-]$ and $\log L = -679/T + 4.87$. Pressure of CO_2 in mm. Hg $= Ng^2/f = N_1(g/m) = N_2(g^2/e)$. Pressure of NH_3 in mm. Hg $= M(e/g) = M_1f/g = M_2.m_1$, where $M_1 = M.K_1$ and $M_2 = M/K_1$. From exptl. data it was found that $\log M = -2064/T + 7.38$ and $\log N = -1248/T + 4.28$.

F. J. Hendel

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SHOKIN, I. N.

SHOKIN, I. N. - "Investigation of the Process of Carbonization of Ammoniated Brine in the Production of Calcined Soda." Min Higher EducationUSSR. Moscow Order of Lenin Chemicotechnological Inst imeni D. I. Mendeleyev. Moscow, 1955. (Dissertation for the Degree of Doctor in Technical Sciences)

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AUTHORS: Sytnik, A. A., Shokin, I. N., Krasheninnikov, S. A.
153-58-1-16/29

TITLE: Investigation of the Process of Carbonization of the Soda Solution in the Production of Purified Bicarbonate (Issledovaniye protsessa karbonizatsii sodovogo rastvora v proizvodstve ochishchennogo bikarbonata). Communication 1: Kinetics of Crystallization of Sodium-Bicarbonate in the Course of the Carbonization of Soda Solution (Soobshcheniye 1. Kinetika kristallizatsii bikarbonata natriya v protsesse karbonizatsii sodovogo rastvora)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Khimiya i khimicheskaya tekhnologiya, 1958, Nr 1, pp. 100-107 (USSR)

ABSTRACT: The crystallization of the salts from solutions can only begin and take place in the case of supersaturation of the latter with respect to the respective salt. The extent of initial supersaturation does not only cause the beginning of the crystallization-process, but it also determines its further course. With high values of supersaturation, but low degrees of agitation of the solution, the born crystal begins to grow so rapidly that a zone of concentration which

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is lower than in the main mass of the liquid, is formed almost instantly around it. Under these conditions, the further growth of each crystal is determined by the diffusion-ratio of the dissolved substance toward the crystalline surface. It is assumed (references 1,2) that the process of crystallization is in this case within the range of diffusion and that its velocity is proportional to the 1st degree of saturation. With intense agitating of the solution the diffusion-ratio becomes so high that actually no weakening of the solution on the crystalline surface takes place. The velocity of crystallization is determined in this case by the slowest process taking place on the crystalline surface and depends on the degree of supersaturation which exceeds 1. This range is called the kinetic one (ref. 2). A survey on the works of the kinetics of crystallization is given (references 2 to 5,7). Works of this kind on the velocity of crystallization of sodium--bicarbonate from soda solutions are lacking, however,

Card 2/4 2 processes take place simultaneously in the crystallizing

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column with the industrial production of purified bicarbonate: a) Absorption of CO_2 and b) Crystallization of sodium bicarbonate. The process b) must obviously influence the kinetics of carbonization in a certain way and viceversa. In the first communication the influence of supersaturation, of the temperature and of the agitation on the velocity of crystallization of sodium bicarbonate from the soda solution in the process of carbonization is investigated. A device developed for this purpose is given in figure 1. The test-method is described. Figure 2 shows the dependence of the precipitated quantity of bicarbonate on the period of carbonization of the solution and that for 2 numbers of revolutions of the stirrer (340 and 2000 revolutions per minute) at 20°. It was proved that the velocity of crystallization of sodium bicarbonate in the range of diffusion, depends on the supersaturation of 1st degree, whereas it is proportional to the 2nd degree of supersaturation within the kinetic range. A different dependence

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Investigation of the Process of Carbonization of the Soda Solution in the Production of Purified Bicarbonate. Communication 1: Kinetics of Crystallization of Sodium-Bicarbonate in the Course of the Carbonization of Soda Solution 153-58-1-16/29

of the velocity of crystallization on the temperature within the range of diffusion and kinetics was proved. Within the first range, this velocity decreases according to the increase in temperature with a given supersaturation, whereas it increases in the latter range. A method of calculation of the velocity of crystallization for the two ranges of the process of crystallization was proposed. There are 10 figures and 7 references, 7 of which are Soviet.

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AUTHORS: Shokin, I. N., Ogloblina, I. P., Solov'yeva, A. S.

153 58-1-17/29

TITLE: On the Non-Equilibrated State of the System in the Carbonization-Process of the Ammoniacal Brine (O neravnovesnom sostoyanii sistemy v protsesse karbonizatsii ammiachnogo rassola)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Khimiya i khimicheskaya tekhnologiya, 1958, Nr 1, pp. 108-118 (USSR)

ABSTRACT: In this process sodiumbicarbonate begins to precipitate from the solutions highly supersaturated with it (references 1,2). The supersaturation decreasing after the beginning of crystallization is preserved until to the end of the process of carbonization. The permanence of the non-equilibrated state in the system to be carbonized, as a whole, is caused by this. Approximating the equilibrium, not only the concentration of HCO_3^- and Na^+ ions is changed in such a solution, the surplus of which is converted into the deposit, but also the concentration of other components of the solution (CO_3^{2-}-, NH_2COO^- - and OH^- -ions) since the conditions of

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equilibrium of the reactions in the solution change. Taking furthermore into consideration that the crystallization of $NaHCO_3$ involves a certain change of volume of the liquid phase, it becomes apparent that the composition of the non-equilibrated solution must differ from the equilibrated solution with respect to all components. The composition of the former can be determined rather accurately by means of analysis. The same is to a large extent also the case with ammonia-carbonate(e'). The non-equilibrated concentrations of other components (HCO_3^- = g' non-bound ammonia = m' and the carbonic acid bound as CO_3^{2-} = f') can only be determined by means of calculation. For this purpose, strictly speaking, only the equations (1) and (2) can be indicated which do not connect the non-equilibrated concentrations of individual components: $d' = e' + f' + 2g'$ (1); $m' = a' - b' - d' + g'$ (2), in which case a' is the total quantity of NH_3, d' = the total CO_2 and b' the bound NH_3. From this, further equations for the constant (K_2) of the reaction $HCO_3^- + OH^- \rightleftarrows CO_3^{2-} + H_2O$ (3) are derived for

 the connection between the non-equilibrated solution and

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the equilibrated solution (4), (5), (6) corresponding to it. A complete composition of the equilibrated solution can be calculated from its 3 known components for the given temperature (ref. 6). When the non-equilibrated concentrations of the 5 components: a', b', c', d' and e' are determined by analysis, complete compositions both for the non-equilibrated and the equilibrated liquid phase can be calculated at a given temperature. Results of the former for the process referred to in the title at 20, 40 and 60° are given in table 1 to 3. They are substantially different from those of the corresponding equilibrated solutions. The degree of the distance of composition of a solution from that of an equilibrated one depends on the temperature. During the whole course of the process referred to in the title, a carbamate supersaturation exists which is crystallizing in the final stage. The total vapor pressures of CO_2, NH_3 and H_2O at 20, 40, 50 and 60° above the non--equilibrated ammonia-salt solutions during their carbonization-process were determined here for the first time. An equation was deduced which allows the calculation of the

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"metastable" CO_2 partial pressures above the solutions in the aforesaid carbonization according to a known, non-equilibrated composition of the liquid phase. The authors finally proposed a method of determination of the vapor tension above the solutions by means of a static method. There are 6 figures, 3 tables, and 9 references, 6 of which are Soviet.

ASSOCIATION: Moskovskiy khimiko-tekhnologicheskiy institut imeni D. I. Mendeleyeva, Kafedra tekhnologii svyazannogo azota i shchelochey (Moscow Chemical-Technological Institute imeni D. I. Mendeleyev, Chair for the Technology of Bound Nitrogen and Alkalies)

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AUTHORS: Aytnik, A. A., Shokin, I. N., Krasheninnikov, S. A.

TITLE: Investigation of the Carbonation Process of the Soda Solution in the Manufacture of Purified Bicarbonate (Issledovaniye protsessa karbonizatsii sodovogo rastvora v proizvodstve ochishchennogo bikarbonata) Communication II. Absorption Kinetics of the Carbonic Acid by Soda Solutions (Soobshcheniye II. Kinetika absorbtsii uglekisloty sodovymi rastvorami)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Khimiya i khimicheskaya tekhnologiya, 1958, Nr 2, pp 90-95 (USSR)

ABSTRACT: Although the problem mentioned in the subtitle has already been treated in numerous papers (Refs 1-6), the results of these investigations are so contradictory that no uniform conception can be achieved regarding these kinetics. In the present paper, the action of the concentration of the sodium bicarbonate solution and its degree of carbonation on the absorption rate of carbonic acid under various hydrodynamical conditions were studied. An absorption-equipment of the film-type was used for this purpose, the construction and mode of function of which are described. First of all, it was to be in-

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Investigation of the Carbonation Process of the Soda Solution in the Manufacture of Purified Bicarbonate. Communication II. Absorption Kinetics of the Carbonic Acid by Soda Solutions

vestigated whether the equation of the absorption rate:

$$N_a = \beta \cdot K \cdot \Delta P \qquad (1),$$

complicated by the chemical reaction, applies for this case (N_a being the rate of absorption, β - the chemical parameter which shows by which amount the rate varies in the presence of a chemically active component in the solution; K - coefficient of the absorption rate, ΔP - the motive force of the process which is $P_{CO_2} - P'_{CO_2}$, P_{CO_2} - the partial pressure of CO_2 in the carbonating gas, P'_{CO_2} for carbonation degrees 100-130% practically equal to zero. The results for 2 different wetting densities: 0.5 and 1.4 m^3/m hour, gas velocity 0.54 m/sec, temperature 20° and carbonation degree 106% (Fig 1) have demonstrated that equation (1) applies for the system given. Figures 2 and 3 illustrate the dependence of the CO_2-absorp-

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Investigation of the Carbonation Process of the Soda Solution in the Manufacture of Purified Bicarbonate. Communication II. Absorption Kinetics of the Carbonic Acid by Soda Solutions

tion rate on the concentration of the solution. It can be seen from this that the velocity mentioned exceeds a maximum at a change of concentration of the solution. The authors explain this by an increase of the degree of hydrolysis of the sodium carbonate with the dilution of the solution. If, however, the soda concentration becomes insignificant because of further dilution, the rate of absorption drops and comes close to that of water. In order to investigate this, the pH was measured (Fig 4). According to the results the pH-curve during the dilution is a reproduction of the course of the curves of the absorption rate. Thus, this rate depends on the OH^- ion concentration. This was expressed by equation (2). The influence exercised by the carbonation degree of the solution upon the absorption rate was studied by means of an installation previously described (Ref 9). Furthermore the authors apply the term "Degree of transition" instead of"Degree of carbonation" of the solution. Figures 5 and 6 show the dependence of the CO_2-absorption rate on the degree of transition for different

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